

# *ATA Standard Numbering System*

Revision 2018.1

# 2200 Extract



ATA e-BUSINESS PROGRAM

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## Highlights

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### Release History

- Revision 2018.1 (November 2018)
- Revision 2017.1 (October 2017)
- Revision 2016.1 (October 2016)
- Revision 2014.1 (September 2014)

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### Revision 2018.1 (November 2018)

| Location                     | Change Description                                                                                                                                                                                                                                                                 |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Section 3-1-3, Table 3-1-3.5 | CR-2015-12_SNS-32: Updated the definitions of ATA Chapter 32 and Section 32-50 to include maneuvering of the aircraft.<br>CR-2018-09_SNS_45-45: Corrected the SNS table for Chapter 45 to reflect that CMS/Aircraft General is covered by Sections -20 thru -44, and -46 thru -49. |

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## 3-1-3. Numbering Systems

### 1. ATA Standard Numbering System

#### 1.1. Policy

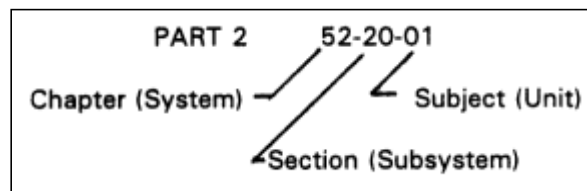
In order to provide standardization in the arrangement of all publications, a simple, uniform numbering system has been devised. It has been designed with sufficient flexibility to permit expansion for the more complicated manuals.

It is desired that the basic patterns of both this numbering system and the standard arrangement of material be used throughout all publications. The detail specification for each publication shall establish the level of complexity required.

#### 1.2. General

The numbering system is a conventional three element dash-number breakdown (Ref. [Figure 3-1-3.1]). It provides a means for dividing material into Chapter, Section, Subject and Pageblock. It also identifies the hardware being worked. Broad rules for applying the system follow.

**Figure 3-1-3.1. Three Element Procedure Numbering System**



No two manuals covering different equipment produced by the same manufacturer should bear the same three-element ATA number (listed and described in ATA Standard Number Breakdown). The first digit of the second element of the three-element numbering system shall conform to those shown in ATA Standard Number Breakdown except in the case of multiple systems.

##### 1.2.1. Special Provisions

Component maintenance procedures on "multiple system use" assemblies, such as electric motors, indicators, actuators, relays, connectors, hydraulic actuators, and pumps, which are usable in more than one system, shall be prepared in accordance with all standards of this specification. The information shall be categorized under the Chapter-Section-Number of the source of power for the assembly, such as 24-09-XX if the source of power is electrical, 29-09-XX if hydraulic, 36-09-XX if pneumatic, etc.

The second element number shall be assigned "09". The manufacturer shall assign the third element "XX." When 99 multiple system use publication numbers have been assigned by a manufacturer, "08" shall then be assigned as the second element number.

### 1.2.2. Number Composition

The number is composed of three elements which consist of two digits each as depicted in [Table 3-1-3.1]. Number Composition.

Table 3-1-3.1. Number Composition

| FIRST ELEMENT     | SECOND ELEMENT                                 | THIRD ELEMENT       | COVERAGE                                                                                                            |
|-------------------|------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------|
| CHAPTER (SYSTEM)  | SECTION (SUBSYSTEM)                            | SUBJECT (UNIT)      |                                                                                                                     |
| 26 -              | 00 -                                           | 00                  | Material which is applicable to the system as a whole.                                                              |
| (SYSTEM)          |                                                |                     |                                                                                                                     |
| "Fire Protection" |                                                |                     |                                                                                                                     |
| 26 -              | 20 -                                           | 00                  | Material which is applicable to the subsystem as a whole.                                                           |
|                   | (SUBSYSTEM)<br>"Extinguishing"                 |                     |                                                                                                                     |
| 26 -              | 22 -                                           | 00                  | Material which is applicable to the sub-subsystem as a whole. This number (digit) is assigned by the manufacturer.  |
|                   | (SUB-SUBSYSTEM)<br>"Engine Fire Extinguishing" |                     |                                                                                                                     |
| 26 -              | 22 -                                           | 03                  | Material which is applicable to a specific unit of the sub-subsystem. Both digits are assigned by the manufacturer. |
|                   |                                                | (UNIT)<br>"BOTTLES" |                                                                                                                     |

NOTE: In covering material which is applicable to a system as a whole, the three-element number shall be used. These shall be the Chapter Number followed by "-00-00".

#### For Example:

21-00-00 would be used for the Systems Description Section, fault isolation and maintenance practices for the complete air conditioning system.

#### For Example:

(Module 3X)

In order that the issuing and filing sequence may be correctly and easily maintained, the following examples illustrate how the catalog page-numbering concept shall appear on the pages.

Table 3-1-3.2. Example Page Numbering

| Example 1                                 | Example 2                                 | Example 3                                 | Example 4                                 |
|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 27-11-00<br>FIG. 1<br>Page 0<br>Oct 25/79 | 27-11-00<br>FIG. 4<br>Page 0<br>Oct 25/79 | 27-11-01<br>FIG. 1<br>Page 0<br>Oct 25/79 | 27-11-01<br>FIG. 3<br>Page 0<br>Oct 25/79 |
| 27-11-00<br>FIG. 1<br>Page 1<br>Oct 25/79 | 27-11-00<br>FIG. 4<br>Page 1<br>Oct 25/79 | 27-11-01<br>FIG. 1<br>Page 1<br>Oct 25/79 | 27-11-01<br>FIG. 3<br>Page 1<br>Oct 25/79 |

Each second element (sub-system or sub-sub-system breakout as envisioned in this specification) shall have a section title page and shall be numbered in the following arrangement on a right-hand page. For example:

|                                     |
|-------------------------------------|
| 27-11-00<br>Section Title<br>Page 1 |
|-------------------------------------|

A more detailed breakdown is illustrated in (Ref. [Figure 3-1-3.2], [Figure 3-1-3.3], and [Figure 3-1-3.4]).

Figure 3-1-3.2. Sample - Table of Contents, Maintenance Manual - Part II

| MANUFACTURERS MASTHEAD<br>MAINTENANCE MANUAL           |                                        |             |                    |
|--------------------------------------------------------|----------------------------------------|-------------|--------------------|
| <u>Subject</u>                                         | <u>Chapter<br/>Section<br/>Subject</u> | <u>Page</u> | <u>Effectivity</u> |
| EXTINGUISHING                                          | 26-20-00                               |             |                    |
| AUXILIARY POWER UNIT (APU)<br>FIRE EXTINGUISHER SYSTEM | 26-21-00                               |             |                    |
| Component Location                                     |                                        | 101         | - ALL              |
| Adjustment/Test                                        |                                        | 501         | - ALL              |
| BOTTLE                                                 | 26-21-01                               |             |                    |
| Unit Servicing                                         |                                        | 301         | CONFIG 1- 901919   |
| Unit Servicing                                         |                                        | 301         | CONFIG 1- 920999   |
| Removal/Installation                                   |                                        | 401         | - ALL              |
| DISC, INDICATOR-<br>THERMAL RELIEF                     | 26-21-11                               |             |                    |
| Removal/Installation                                   |                                        | 401         | - ALL              |
| ENGINE FIRE EXTINGUISHING<br>SYSTEM                    | 26-22-00                               |             |                    |
| Component Location                                     |                                        | 101         | - ALL              |
| Adjustment/Test                                        |                                        | 501         | - ALL              |
| BOTTLES                                                | 26-22-03                               |             |                    |
| Maintenance Practices                                  |                                        | 201         | - ALL              |
| Unit Servicing                                         |                                        |             |                    |
| Removal/Installation                                   |                                        |             |                    |
| DISC, INDICATOR-<br>DISCHARGE                          | 26-22-06                               |             |                    |
| Removal/Installation                                   |                                        | 401         | - ALL              |
| VALVE- ENGINE<br>SELECTOR CONTROL                      | 26-22-21                               |             |                    |
| Removal/Installation                                   |                                        | 401         | CONFIG 1- 901933   |
| Removal/Installation                                   |                                        | 401         | CONFIG 2- 934999   |
| Adjustment/Test                                        |                                        | 501         | CONFIG 1- 901933   |
| Adjustment/Test                                        |                                        | 501         | CONFIG 2- 934999   |
|                                                        |                                        |             | Page 4             |
| <b>26- CONTENTS</b>                                    |                                        |             | May 6/94           |

Figure 3-1-3.3. Sample - List of Effective Pages, Component Maintenance Manual

| MANUFACTURER'S MASTHEAD |       |           |            |       |           |
|-------------------------|-------|-----------|------------|-------|-----------|
| MANUAL TITLE            |       |           |            |       |           |
| BASIC PART NUMBER       |       |           |            |       |           |
| LIST OF EFFECTIVE PAGES |       |           |            |       |           |
| SUBJECT                 | PAGE  | DATE      | SUBJECT    | PAGE  | DATE      |
|                         | 406   | Jul 1/71  |            | 712   | Dec 31/71 |
|                         | 407   | Jul 1/71  |            | 713   | Dec 31/71 |
|                         |       |           |            | 714   | Dec 31/71 |
| Check                   | 501   | Jul 1/71  |            | 715   | Dec 31/71 |
|                         | 502   | Dec 31/71 |            | 716   | Dec 31/71 |
|                         | 503   | Jul 1/71  |            | 717   | Dec 31/71 |
|                         | 504   | Jul 1/71  |            | 718   | Dec 31/71 |
|                         |       |           |            | 719   | Dec 31/71 |
| Repair No 1             | 601   | Dec 31/71 |            | 720   | Dec 31/71 |
|                         | 602   | Dec 31/71 |            | 721   | Blank     |
|                         | 603   | Dec 31/71 |            | 722   | Dec 31/71 |
|                         | 604   | Dec 31/71 |            | 723 * | Dec 31/80 |
|                         | 605   | Dec 31/71 |            | 724   | Dec 31/71 |
|                         |       |           |            | 725   | Dec 31/71 |
| Repair No 2             | 601   | Dec 31/71 |            | 726   | Dec 31/71 |
|                         | 602   | Dec 31/71 |            | 727   | Dec 31/71 |
| F 603/604               | 603   | Dec 31/71 |            | 728   | Dec 31/71 |
|                         | 605   | Dec 31/71 |            | 729   | Dec 31/71 |
|                         |       |           |            | 730   | Dec 31/71 |
| Assembly                | 701   | Dec 31/71 |            | 731   | Dec 31/71 |
|                         | 702   | Dec 31/71 |            | 732   | Dec 31/71 |
|                         | 703   | Dec 31/71 |            | 733   | Dec 31/71 |
|                         | 704   | Dec 31/71 |            | 734   | Dec 31/71 |
|                         | 705 * | Dec 31/80 |            | 735   | Dec 31/71 |
|                         | 706   | Dec 31/71 | Fits and   | 801   | Dec 31/71 |
|                         | 707   | Dec 31/71 | Clearances |       |           |
|                         | 708 * | Dec 31/80 |            |       |           |
|                         | 709   | Dec 31/71 | Testing    | 901   | Dec 31/71 |
|                         | 710   | Dec 31/71 |            | 902   | Dec 31/71 |
|                         | 711   | Dec 31/71 |            | 903   | Dec 31/71 |
|                         |       |           |            | 904   | Dec 31/71 |

\* The asterisk indicates pages changed, added or deleted

F = Foldout Page

34-21-12  
List of Effective Pages  
Page 2  
Dec 31/80

Figure 3-1-3.4. Sample - List of Effective Pages, Engine Manual

| MANUFACTURER'S MASTHEAD                                           |                          |                                                    |                           |                          |                                                  |
|-------------------------------------------------------------------|--------------------------|----------------------------------------------------|---------------------------|--------------------------|--------------------------------------------------|
| ENGINE MANUAL                                                     |                          |                                                    |                           |                          |                                                  |
| LIST OF EFFECTIVE PAGES                                           |                          |                                                    |                           |                          |                                                  |
| CHAPTER<br>SECTION                                                | PAGE                     | DATE                                               | CHAPTER<br>SECTION        | PAGE                     | DATE                                             |
| Tab Separator - Axial Compressor (Fan)<br>Rotor Section           |                          |                                                    | 72-31-00<br>INSP/CHECK-03 | 801<br>802<br>803        | * DEC 31/80<br>* DEC 31/80<br>* DEC 31/80        |
| List of Effective Pages - Axial<br>Compressor (Fan) Rotor Section |                          |                                                    |                           | 804<br>805<br>806<br>807 | JUL 15/77<br>JUL 15/77<br>JUL 15/77<br>JUL 15/77 |
| Table of Contents - Axial Compressor<br>(Fan) Rotor Section       | 01                       | JUL 15/77                                          |                           | 808<br>809<br>810        | * DEC 31/80<br>* DEC 31/80<br>* DEC 31/80        |
| 72-31-00                                                          | 01                       | JUL 15/77                                          |                           | F 811/812                | * DEC 31/80                                      |
|                                                                   | 02                       | APR 15/77                                          |                           |                          |                                                  |
|                                                                   | 03                       | APR 15/77                                          |                           |                          |                                                  |
|                                                                   | 04                       | APR 15/77                                          |                           |                          |                                                  |
|                                                                   | 05                       | JUL 15/77                                          | 72-31-00<br>SERVICING     | 1101<br>1102             | APR 15/77<br>APR 15/77                           |
|                                                                   | 06                       | JUL 15/77                                          |                           |                          |                                                  |
|                                                                   | 07                       | JUL 15/77                                          | 72-31-01<br>INSP/CHECK-01 | 801/802                  | APR 15/77                                        |
|                                                                   | 08                       | APR 15/77                                          |                           |                          |                                                  |
| 72-31-00<br>DESCRIPT-01                                           | 101<br>102<br>103/104    | APR 15/77<br>APR 15/77<br>APR 15/77                | 72-31-01<br>REPAIR-01     | 901<br>902               | APR 15/77<br>APR 15/77                           |
| 72-31-00<br>REMOVAL-01                                            | 301/302                  | APR 15/77                                          | 72-31-02<br>DISASSY-01    | 501<br>502               | APR 15/77<br>APR 15/77                           |
| 72-31-00<br>INSTALL-01                                            | 401/402                  | APR 15/77                                          | 72-31-02<br>INSP/CHECK-01 | 801<br>802               | APR 15/77<br>APR 15/77                           |
| 72-31-00<br>DISASSY-01                                            | 501/502                  | APR 15/77                                          |                           | 803<br>804<br>805<br>806 | APR 15/77<br>JUL 15/77<br>APR 15/77<br>APR 15/77 |
| 72-31-00<br>CLEANING-01                                           | 601<br>602<br>603/604    | APR 15/77<br>APR 15/77<br>APR 15/77                | 72-31-02<br>REPAIR-01     | 901<br>902               | APR 15/77<br>APR 15/77                           |
| 72-31-00<br>INSP/CHECK-01                                         | 801/802                  | APR 15/77                                          | 72-31-02<br>REPAIR-02     | 901<br>902               | APR 15/77<br>APR 15/77                           |
| 72-31-00<br>INSP/CHECK-02                                         | 801<br>802<br>803<br>804 | APR 15/77<br>* DEC 31/80<br>APR 15/77<br>APR 15/77 | 72-31-02<br>REPAIR-03     | 901<br>902               | APR 15/77<br>APR 15/77                           |
|                                                                   |                          |                                                    | 72-31-02<br>REPAIR-04     | 901<br>902               | APR 15/77<br>APR 15/77                           |

\* The asterisk indicates pages changed, added or deleted

F = Foldout Page

Page 1  
LIST OF EFFECTIVE PAGES Dec 31/80

Variations in the assigning of the Chapter 72 second and third elements shall be used to differentiate between on-engine and off-engine maintenance (cross-over numbering only used for [Chapter (System) 71] & [Chapter (System) 72] as follows:

Table 3-1-3.3. ATA Numbering Example

| FIRST ELEMENT<br>(CHAPTER) | SECOND<br>ELEMENT<br>(SECTION) | THIRD<br>ELEMENT<br>(SUBJECT) | COVERAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------|--------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71 -                       | 00 -                           | 00                            | Information applicable to the QEC Unit inclusive of those interrelated parts that while remaining with the aircraft when the QEC is dropped can be removed for maintenance. Also, those detailed instructions for conversion from one engine build position to another. Information for work on parts removed above will be covered in appropriate Chapter-Section (e.g., -10 to -70/71-31 Fire Seals, 71-51 Electrical Harness, etc.).                                                              |
| 71 -                       | 00 -                           | 3X*                           | Information required to gain access on an off-the-wing assembled QEC Unit for subsequent replacement of modules/components (which shall be covered under 72-00-3X). This would include removal/installation of QEC items associated with the modules/components, and related tasks such as Inspection, Repairs, etc., to parts still installed.                                                                                                                                                      |
| 71 -                       | 3X -                           | XX                            | Information required to Disassemble, Assemble, Inspect, Repair, etc., a QEC related assembly/sub-assembly/ component, as applicable.                                                                                                                                                                                                                                                                                                                                                                 |
| 72 -                       | 00 -                           | 00                            | Information applicable to the complete engine, and special self-contained procedures that do not lend themselves to coverage under other breakouts (e.g., special incidents procedures after oil contamination). Special procedures can be either preventative or restorative in nature. Servicing items of a routine or a restorative nature normally required as a result of other maintenance actions shall be included. Replenishment of the engine oil represents such a servicing requirement. |
| 72 -                       | 00 -                           | 3X*                           | Information required for module Removal/ Installation and interface inspection following accomplishment of 71-00-3X related maintenance and maintenance of non-70 series attaching parts and fittings not normally covered in an accessory component maintenance manual (i.e., bracket on gearbox, hydraulic lines, attach fittings, etc.).                                                                                                                                                          |
| 72 -                       | 3X* -                          | 00                            | Information required to disassemble-inspect-repair-etc., a module/mini-module/component.                                                                                                                                                                                                                                                                                                                                                                                                             |
| 72 -                       | 3X* -                          | 01                            | Information required for work on a unit or portion thereof.                                                                                                                                                                                                                                                                                                                                                                                                                                          |

\*This Digit is used for module identification.

### 1.3. Use of "Chapter/Section" Number Term

#### 1.3.1. System-Subsystem-Unit or Chapter-Section-Subject Number

These terms describe the number when it is referred to as a whole. For Example:

The number 29-31-03, which contains elements on all levels, may be called the chapter-section-subject number or more simply, the equipment identifier, for easier identification and reference.

When referred to as a unit, and for the sake of brevity, the chapter-section-subject or the chapter-section number shall be called the "Chapter-Section" number.

The chapter and the broad subsystem separations of the section elements are assigned by this specification. Sub-subsystem breakouts within the section and all subject (unit) elements are assigned by the manufacturer.

#### **1.4. Chapter (System) Numbering**

A division of data according to its system content. When technical data is provided in manual format, a system is indexed within the publication as a chapter. The System or Chapter Number is assigned the first element of the equipment identifier.

A system is a combination of inter-related components arranged to perform a specific function. Each system as defined includes the basic components and all instruments, mechanical controls, electrical and hydraulic units related to the system.

When a power source (electrical, pneumatic, or hydraulic) serves a single component or a single functioning system, that power source will be included in the discussion of the component or system which it serves. Examples are in the air storage bottle supplying the air starter, the battery energizing the emergency exit light circuit, and the air bottle supplying emergency brake pressure.

When two or more systems are served by a single power source, that power source will be discussed separately under the appropriate chapter heading, such as electrical, pneumatic, hydraulic or vacuum, etc. An example is the pneumatic system supplying air to both the air conditioning system and the engine starters.

Chapter Numbers and titles are listed in [\[Heading 3-1-3.1.8\]](#). Usage of the chapters in the standard publications is depicted on the charts in [\[Subject 3-1-7\]](#).

#### **1.5. Section (Sub-System) Numbering**

This element is a division of data which permits a system classification to be further subdivided. When in manual format, a subsystem is identified with a publication as a Section within a Chapter and together with its sub-subsystem identifier, is assigned the second element of the equipment identifier.

Section (subsystem) numbers and titles are listed in [\[Heading 3-1-3.1.8\]](#). In most chapters the breakdown with appropriate application of the third element numbers will be adequate to separate the material.

When two or more subsystems or sub-subsystems in a different system are so interrelated and integrated that they cannot logically and practically be treated as separates, such as a combined autopilot and flight director system, they shall be

combined into a common subsystem or sub-subsystem and be assigned the chapter-section number of the predominant subsystem or sub-subsystem.

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NOTE:</b> | For the sake of brevity, the subsystem and sub-subsystem designations used in the second element are usually only referred to as a "system". For example, a Pitot static "system" is described as a sub-subsystem of Navigation (34) and a subsystem of Flight Environmental Data (34-10). Subsystem and sub-subsystem designations are primarily useful only when a distinction needs to be made between the first and the second digit of the second element of the equipment identifier. |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## **1.6. Section (Sub-Subsystem) Numbering**

Certain chapters which contain very complex subsystems may require a further breakout into sub-subsystems. This will be indicated by the fourth digit such as 34-51-03. In this case -51 might be the DME sub-subsystem of the dependent position determining subsystem of the navigation system. The -03 might be the amplifier, a unit of the DME sub-subsystem. Similarly, -52 might be the ADF sub-subsystem and -01 one of its units such as antenna.

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NOTE:</b> | When complexity of the subsystem dictates the need for going to the sub-subsystem breakout, the application of the subsystem designator must be confined to discussion of the total subsystem. For example, material contained in 34-50 would necessarily be confined to general discussion of the total dependent position determining subsystem, and would require the addition of zeros in the third element (34-50-00). A sub-subsystem cannot be identified in the second element unless a fourth digit number is assigned. |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## **1.7. Subject (Unit) Numbering**

The subject (unit) number is assigned by the manufacturer.

This is the final division to provide identification of specific equipment within a system/subsystem/sub-subsystem.

Unit (subject) shall be identified by the third element of the equipment identifier.

The fourth digit of the regular six-digit ATA number shall be used for joining the subsystem identification and module identification.

The section element assigned to each aircraft report shall be the applicable aircraft registration identification without punctuation or spacing.

The number assigned shall be allocated to cover the smallest number of parts practical. In the numbering of multi-stage parts (i.e., 1st, 2nd, 3rd stage blades) to which common work procedures are applicable, the same subject number may be allocated.

## 1.8. ATA Standard Number Breakdown

The Listing that follows identifies and defines the system/chapter and subsystem/section breakdown which must be followed in the presentation of technical data:

*Table 3-1-3.4. Definitions of Aircraft Groups*

| GROUP                        | SYS/ CHAP RANGE | DEFINITION                                                                                                                                                                                                       |
|------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AIRCRAFT GENERAL             | 5 - 12          | The complete operational unit. Includes dimensions and areas, lifting and shoring, leveling and weighing, towing and taxiing, parking and mooring, required placards, servicing.                                 |
| AIRFRAME SYSTEMS             | 20 - 49         | All airframe systems except the Power Plant package.                                                                                                                                                             |
| PROPELLER/ROTOR              | 60 - 67         | Complete propeller/rotor system excluding propeller/rotor anti-icing system.                                                                                                                                     |
| STANDARD PRACTICES - ENGINES | 70              |                                                                                                                                                                                                                  |
| POWER PLANT                  | 71 - 84         | The complete power unit which develops thrust either through the exhaust or through a propeller. Excludes items such as generators, cabin superchargers, etc., which are covered under their respective systems. |
| OTHER                        | 91              | Charts                                                                                                                                                                                                           |
|                              | 115             | Flight Simulator Systems                                                                                                                                                                                         |
|                              | 116             | Flight Simulator Cuing Systems                                                                                                                                                                                   |

Table 3-1-3.5. Definitions of Aircraft Groups, Systems, and Subsystems

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                              | DEFINITION                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|---------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0            |                     | Product, General                   | General information that is non-system specific in its usage.                                                                                                                                                                                                                                                                                                                          |
|              | -00                 | General                            | General information that is common across various projects or products, pertains to administrative data, or is generic in nature.<br><br>This information must be non-system specific in its usage.                                                                                                                                                                                    |
| 1            |                     | *Reserved for Airline Use          |                                                                                                                                                                                                                                                                                                                                                                                        |
| 2            |                     | *Reserved for Airline Use          |                                                                                                                                                                                                                                                                                                                                                                                        |
| 3            |                     | *Reserved for Airline Use          |                                                                                                                                                                                                                                                                                                                                                                                        |
| 4            |                     | *Reserved for Airline Use          |                                                                                                                                                                                                                                                                                                                                                                                        |
| 5            |                     | TIME LIMITS/<br>MAINTENANCE CHECKS | Manufacturers' recommended time limits for inspections, maintenance checks and inspections (both scheduled and unscheduled).                                                                                                                                                                                                                                                           |
|              | -00                 | General                            |                                                                                                                                                                                                                                                                                                                                                                                        |
|              | -10                 | Time Limits                        | Those manufacturer-recommended time limits for inspections, maintenance and overhaul of the aircraft, its systems and units, and life of parts.                                                                                                                                                                                                                                        |
|              |                     |                                    | For engine manufacturers this will include the flight cycle lives of major rotating components and other items designated critical.                                                                                                                                                                                                                                                    |
|              | -20                 | Scheduled Maintenance Checks       | Those manufacturer-recommended maintenance checks and inspections of the aircraft, its systems and units dictated by the time limits specified in -10 above. This section shall list in more detail the items which are outlined on the airline job forms (usually by title only), and shall cross-reference the detailed procedures included in the individual Maintenance Practices. |

| SYS/<br>CHAP                                                                                                                                                                                                                                                                                                              | SUB-SYS/<br>SECTION | TITLE                          | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                           | -30 & -40           |                                | Reserved for use in those cases where the number of breakouts provided by the fourth digit of the -20 breakout is not sufficient to cover all of the maintenance checks dictated by subsystem -10 above.                                                                                                                                                                                                                    |
| NOTE: Inclusion of the data described in -10 through -40 above, in any manual or manual publication is specifically prohibited unless required by government regulation. Airlines desire the manufacturer's recommended time limits and scheduled maintenance checks but these should be provided in a separate document. |                     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                           | -50                 | Unscheduled Maintenance checks | Those maintenance checks and inspections on the aircraft, its systems and units which are dictated by special or unusual conditions which are not related to the time limits specified in -10 above. Includes inspections and checks such as hard landing, overweight landing, bird strike, turbulent air, lightning strike, slush ingestion, radioactive contamination, maintenance checks prior to engine-out ferry, etc. |
| 6                                                                                                                                                                                                                                                                                                                         |                     | DIMENSIONS AND AREAS           | Those charts, diagrams, and text which show the area, dimensions, stations, access doors/zoning (Ref. <a href="#">Heading 3-1-3.3</a> ) and physical locations, of the major structural members of the aircraft. Includes an explanation of the system of zoning and measurement used.                                                                                                                                      |
| 7                                                                                                                                                                                                                                                                                                                         |                     | LIFTING & SHORING              | This chapter shall include the necessary procedures to lift & shore aircraft in any of the conditions to which it may be subjected. Includes lifting and shoring procedures that may be employed during aircraft maintenance and repair.                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                           | -00                 | General                        |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                           | -10                 | Jacking                        | Provides information relative to jack points, adapters, tail supports, balance weights, jacks and jacking procedures utilized during aircraft maintenance and repair.                                                                                                                                                                                                                                                       |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                  | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -20                 | Shoring                | Those instructions necessary to support the aircraft during maintenance and repair. Includes information on shoring materials and equipment, contour dimensions, shoring locations, etc.                                                                                                                                                                                                                                                   |
| 8            |                     | LEVELING & WEIGHING    | This chapter shall include the necessary information to properly level the aircraft for any of the various maintenance, overhaul or major repairs which might become necessary during the life of the aircraft. It shall also include those units or components which are specifically dedicated to record, store or compute weight and balance data. Includes those maintenance practices necessary to prepare the aircraft for weighing. |
|              | -00                 | General                |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|              | -10                 | Weighing and Balancing | Those units or components dedicated to the specific function of recording, storing or computing weight and balance data.                                                                                                                                                                                                                                                                                                                   |
|              | -20                 | Leveling               | Provides information relative to those units or components dedicated to the specific function of leveling the aircraft.                                                                                                                                                                                                                                                                                                                    |
| 9            |                     | TOWING & TAXIING       | Those instructions necessary to tow and taxi the aircraft.                                                                                                                                                                                                                                                                                                                                                                                 |
|              |                     |                        | Charts showing location of attachment points, turning radius, etc., shall be included. Includes those maintenance practices necessary to prepare the aircraft for towing and taxiing.                                                                                                                                                                                                                                                      |
|              | -00                 | General                |                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                                               | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|---------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -10                 | Towing                                              | Those instructions necessary to tow or push the aircraft in normal or other conditions such as towing with engines removed, etc. Shall include equipment and materials required such as towing vehicles, tow bars, towing cables, etc.; procedures to be used such as ground turning techniques, use of interphone and brakes, connection of electrical power, etc.; precautions and limitations such as use of landing gear and control surface locks, minimum turning radius, maximum towing and pushing loads on nose landing gear, etc. |
|              | -20                 | Taxiing                                             | Those instructions necessary to taxi the aircraft in normal or abnormal conditions such as adverse weather conditions, etc. Shall include procedures to be used such as use of engines, interphone and brakes, ground turning techniques, etc.; precautions and limitations such as jet intake and exhaust danger areas, minimum turning radius, friction coefficients for various ground conditions, etc.                                                                                                                                  |
| 10           |                     | PARKING, MOORING,<br>STORAGE & RETURN TO<br>SERVICE | Those instructions necessary to park, store, moor and prepare the aircraft for service in any of the conditions to which it may be subjected. Charts showing location of landing gear and control surface locks, blanking plugs and covers, mooring points, etc., shall be included. Includes those maintenance practices necessary to prepare the aircraft for parking, mooring, or storage.                                                                                                                                               |
|              | -00                 | General                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                 | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -10                 | Parking/Storage       | Those instructions necessary to park or store the aircraft in normal or abnormal conditions such as with engines removed or aircraft damaged for short or long terms. Shall include equipment and materials required such as landing gear and control surface locks, wheel chocks, blanking plugs and covers, cocooning materials, etc.; procedures such as periodic engine running, control or drainage of fluid systems, static grounding, etc.; precautions and limitations, such as landing gear strut pressures and wheel rotation, control of lifted equipment, etc. |
|              | -20                 | Mooring               | Those instructions necessary to moor or picket the aircraft in normal or abnormal conditions or with engines removed, etc.; for short or long terms in extremes of weather conditions. Shall include equipment and materials required such as wheel chocks, mooring blocks, mooring cables, etc.; procedures such as ballasting, etc.; precautions and limitations such as control in high wind conditions, etc.                                                                                                                                                           |
|              | -30                 | Return to Service     | Those instructions necessary to prepare the aircraft for operation following mooring, parking, or a period of storage.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11           |                     | PLACARDS AND MARKINGS | All procurable placards, labels, etc., shall be included in the illustrated Parts Catalog. They shall be illustrated, showing the part number, Legend and Location.                                                                                                                                                                                                                                                                                                                                                                                                        |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                               | DEFINITION                                                                                                                                                                                                                                                                                                                        |
|--------------|---------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                     |                                     | The Maintenance Manual shall provide the approximate Location (i.e., FWD-UPPER-RH) and illustrate each placard, label, marking, self-illuminating sign, etc., required for safety information, maintenance significant information or by government regulations. Those required by government regulations shall be so identified. |
|              | -00                 | General                             |                                                                                                                                                                                                                                                                                                                                   |
|              | -10                 | Exterior Color Schemes and Markings | This sub-system/section breakdown reserved for airline use.                                                                                                                                                                                                                                                                       |
|              | -20                 | Exterior Placards and Markings      | Those placards and markings required for ground servicing instructions, inspections, cautions, warnings, etc.                                                                                                                                                                                                                     |
|              | -30                 | Interior Placards                   | Those placards, markings, self-illuminating signs, etc. required for interior general and emergency information, instructions, cautions, warnings, etc.                                                                                                                                                                           |
| 12           |                     | SERVICING                           | Those instructions for the replenishment of fluids, scheduled and unscheduled servicing applicable to the whole airplane. The information shall be concise and preferably in tabular or chart form.                                                                                                                               |
|              |                     |                                     | Precautions to be observed in servicing a particular tank or reservoir, such as grounding and prevention of fire hazards, shall be clearly stated. Instructions regarding access to any out-of-the-way or unusual places requiring service shall be given.                                                                        |
|              |                     |                                     | A diagram showing location of regular and emergency servicing points shall be included. "No-step" areas or walkways leading to any tank in a wing or hull, with necessary precautions, shall be indicated.                                                                                                                        |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                 | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------|---------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -00                 | General               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|              | -10                 | Replenishing          | Those instructions necessary for the replenishment of fuel, oil, hydraulic fluid, water, other fluids, tire pressure, etc. Tank and reservoir capacities in U.S., imperial and metric measure, shall be included. ANA or other standard specification number and grade (if applicable) of fuel, oil, fluid, and other material used shall be given. Specifications and grades should be shown grouped on one page to facilitate revisions. For fuel, give expansion volume, total fuel capacity, sump capacity, net fuel capacity (as applicable) for each tank. For oil, give allowance for expansion. |
|              | -20                 | Scheduled Servicing   | Those instructions necessary to carry out servicing that may be scheduled. Includes instructions such as those for periodic lubrication of components, radioactivity decontamination, aircraft external and internal cleaning, disinfection of aircraft, sanitization of drinking water, etc. Shall not include lubrication procedures required for the accomplishment of maintenance practices.                                                                                                                                                                                                        |
|              | -30                 | Unscheduled Servicing | Those instructions necessary to carry out servicing that is normally unscheduled. Includes instructions such as those for ice and snow removal from parked aircraft, etc.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13           |                     | *Unassigned           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 14           |                     | *Unassigned           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15           |                     | *Unassigned           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 16           |                     | *Unassigned           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 17           |                     | *Unassigned           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                                                              | DEFINITION                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18           |                     | VIBRATION AND NOISE ANALYSIS (HELICOPTER ONLY)                     | This chapter shall provide the necessary information to enable operators to monitor and diagnose vibration and noise levels in order to identify imbalance, damage or misalignment in helicopter dynamic and structural components.                                                                                                        |
|              | -00                 | GENERAL                                                            |                                                                                                                                                                                                                                                                                                                                            |
|              | -10                 | VIBRATION ANALYSIS                                                 | Those instructions necessary to monitor, measure, diagnose and locate sources of vibration in dynamic and structural components. The instructions shall cover related maintenance procedures such as main rotor tracking, tail rotor balancing, main rotor head absorber tuning/checking, general airframe vibration monitoring, etc.      |
|              | -20                 | NOISE ANALYSIS                                                     | Those instructions necessary to monitor, measure, diagnose and locate sources of noise in dynamic and structural components.                                                                                                                                                                                                               |
| 19           |                     | *Unassigned                                                        |                                                                                                                                                                                                                                                                                                                                            |
| 20           |                     | STANDARD PRACTICES-AIRFRAME (Ref. <a href="#">Subject 3-1-13</a> ) |                                                                                                                                                                                                                                                                                                                                            |
| 20           | -90                 | *Reserved for Airline Use                                          |                                                                                                                                                                                                                                                                                                                                            |
| 21           |                     | AIR CONDITIONING                                                   | Those units and components which furnish a means of pressurizing, heating, cooling, moisture controlling, filtering and treating the air used to ventilate the areas of the fuselage within the pressure seals. Includes cabin supercharger, equipment cooling, heater, heater fuel system, expansion turbine, valves, scoops, ducts, etc. |
|              | -00                 | General                                                            |                                                                                                                                                                                                                                                                                                                                            |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                  | DEFINITION                                                                                                                                                                                                                                                                              |
|--------------|---------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -10                 | Compression            | That portion of the system and its controls which supplies compressed air. Includes items such as controls and indicating systems related to the compressors, wiring, etc. Does not include the pressure control and indicating system for the cabin pressurization.                    |
|              | -20                 | Distribution           | That portion of the system used to induct and distribute air. Includes equipment rack cooling systems and items such as blowers, scoops, ducting, inlets, check valves, wiring, etc. Does not include valves which are part of pressurization and temperature control.                  |
|              | -30                 | Pressurization Control | That portion of the system used to control the pressure within the fuselage. Includes items such as control valves, relief valves, indicators, switches, amplifiers, wiring, etc.                                                                                                       |
|              | -40                 | Heating                | That portion of the system and its controls which supply heated air. Includes items such as heater panels and other units, fuel system and control, ignition, indicating systems related to heater operation, wiring, etc. Does not include temperature control and indicating systems. |
|              | -50                 | Cooling                | That portion of the system and its controls which supply cooled air. Includes items such as the cooling unit, indicating systems related to the cooler operation, wiring, etc. Does not include temperature control and indicating systems.                                             |
|              | -60                 | Temperature Control    | That portion of the system used to control the temperature of the air. Includes items such as control valves, thermal sensing devices, switches, indicators, amplifiers, wiring, etc.                                                                                                   |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                            | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------|---------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -70                 | Moisture/Air Contaminant Control | That portion of the system used to control moisture in the air, to control ozone concentrations, to filter radioactive debris from conditioned air, and to treat the air with deodorizers, insecticides, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|              | -97                 | Wiring Discrepancies             | This section is to be used to report wiring discrepancies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 22           |                     | AUTO FLIGHT                      | Those units and components which furnish a means of automatically controlling the flight of the aircraft. Includes those units and components which control direction, heading, attitude, altitude and speed.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|              | -00                 | General                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|              | -10                 | Autopilot                        | That portion of the system that uses radio/radar signals, directional and vertical references, air data pitot-static, computed flight path data, or manually induced inputs to the system to automatically control the flight path of the aircraft through adjustment to the pitch/roll/yaw axis or wing lift characteristics and provide visual cues for flight path guidance, i.e.: Integrated Flight Director. This includes power source devices, interlocking devices and amplifying, computing, integrating, controlling, actuating, indicating and warning devices such as computers, servos, control panels, indicators, warning lights, etc. |
|              | -20                 | Speed-Attitude Correction        | That portion of the system that automatically maintains safe flight conditions by correcting for effects of speed and out-of-trim conditions by such means as automatic trim, mach trim or speed stability and mach feel. This includes sensing, computing, actuating, indicating, internal monitoring, and warning devices, etc.                                                                                                                                                                                                                                                                                                                     |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                        | DEFINITION                                                                                                                                                                                                                                                                                                                                                      |
|--------------|---------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -30                 | Auto Throttle                | That portion of the system that automatically controls the position of the throttles to properly manage engine power during all phases of flight/attitude. This includes engaging, sensing, computing, amplifying, controlling, actuating and warning devices such as amplifiers, computers, servos, limit switches, clutches, gear boxes, warning lights, etc. |
|              | -40                 | System Monitor               | That which provides separate or external monitoring/remote readout (for maintenance or other purposes) not directly related to the internal system monitoring (for system integrity flight crew warning). This includes sensing, computing, indicating and warning devices, control panels, etc.                                                                |
|              | -50                 | Aerodynamic Load Alleviating | The system or portion of the system that automatically corrects/provides for gust loading/upset, aerodynamic augmentation/alleviation/suppression, ride control, etc. This includes sensing, computing, actuating, indicating internal monitoring, warning devices, etc.                                                                                        |
|              | -97                 | Wiring Discrepancies         | This section is to be used to report wiring discrepancies.                                                                                                                                                                                                                                                                                                      |
| 23           |                     | COMMUNICATIONS               | Those units and components which furnish a means of communicating from one part of the aircraft to another and between the aircraft and another aircraft or ground stations. Includes voice, data, C-W communicating components, reproducers, all transmitting/receiving equipment, associated antennas, etc.                                                   |
|              | -00                 | General                      |                                                                                                                                                                                                                                                                                                                                                                 |

| SYS/<br>CHAP | SUB-SYS/<br>SECTION | TITLE                                        | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|---------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | -10                 | Speech Communications                        | That portion of the system which utilizes voice modulated electromagnetic waves to transmit and/or receive messages from air to air, or air to ground installations. Includes H.F., VHF, UHF., etc., inflight telephone, communication transmitting & receiving equipment. Passenger air-to-ground communications now in [Chapter (System) 44-30]                                                           |
|              | -15                 | SATCOM                                       | That portion of the system which utilizes satellite communication systems (SATCOM).                                                                                                                                                                                                                                                                                                                         |
|              | -20                 | Data Transmission and Automatic Calling      | That portion of the system which presents information derived from pulse coded transmissions. Includes Teleprinter, Selcal, Calsel, ACARS, etc.                                                                                                                                                                                                                                                             |
|              | -30                 | Passenger Address, Entertainment and Comfort | Available<br>This sub-system now included in [Chapter (System) 44]                                                                                                                                                                                                                                                                                                                                          |
|              | -40                 | Interphone                                   | Available Interphone now included in Chapters 23-50 (Cockpit) and 44-10 (Cabin)                                                                                                                                                                                                                                                                                                                             |
|              | -50                 | Audio Integrating                            | That portion of the system which controls the output of the communications and navigation receivers into the flight crew headphones and speakers and the output of the flight crew microphones into the communications transmitters. Also includes the flight to ground personnel communications. Includes items such as audio selector control panel, micro-phones, headphones, cockpit loudspeakers, etc. |
|              | -60                 | Static Discharging                           | That portion of the system which is used to dissipate static electricity.                                                                                                                                                                                                                                                                                                                                   |