

## AUTO FLIGHT - APM OPTIONS INSTALLATION TO ENABLE AUTO LNAV (LATERAL NAVIGATION) FUNCTION

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### 1. PLANNING INFORMATION

#### A. SB EFFECTIVITY

Aircraft affected:

MODEL	SN
Embraer 190( ) and 195( )	19000147, 19000150, 19000163, 19000178, 19000189, 19000237, 19000239 thru 19000242, 19000247, 19000260, 19000271, 19000282, 19000295, 19000329, 19000330, 19000336, 19000353, 19000356, 19000361, 19000366, 19000370, 19000374, 19000378, 19000382, 19000386, 19000391, 19000396, 19000407, 19000413, 19000419, 19000429, 19000432, 19000434, 19000441, 19000449, 19000450, 19000458, 19000460, 19000471, 19000475, 19000484, 19000491, 19000493, 19000495, 19000498, 19000506, 19000510, 19000514, 19000521, 19000530, 19000540, 19000541, 19000550, 19000569, 19000575, 19000580, 19000585, 19000588, 19000590, 19000592, 19000600, 19000609, 19000615, 19000620, 19000621, 19000626, 19000628, and 19000638.

In-production effectivity:

Embraer 190( ) and 195( ) model aircraft SN 19000647 and on, optionally, have an equivalent modification factory-incorporated.

#### B. CONCURRENT REQUIREMENTS

Make sure that PRIMUS EPIC Software LOAD 23.1 PN PS7027709-00127 or higher is installed before the accomplishment of this bulletin.

## C. REASON

### (1) HISTORY

Customer requested the activation of Auto Lateral Navigation (LNAV) Flight Director (FD) function.

### (2) OBJECTIVE

To install Aircraft Personality Module (APM) Options which enables Auto LNAV functionality.

### (3) EXPECTED BENEFITS

The Auto LNAV functionality allows the Flight Director lateral mode to automatically changes to LNAV after a Go Around (GA) is commanded. In this way, the missed approach programmed into the Flight Management System (FMS) will be followed without manual selection in the Guidance Panel of FMS as navigation source and LNAV as lateral mode.

### (4) REVISION HISTORY

None.

## D. DESCRIPTION

The modification described in this bulletin consists in changing the current APM options to the new version.

For this, it is necessary to connect a notebook Personal Computer (PC) with the applicable Remote Terminal (RT) and Data Loading System (DLS) software version to the Local Area Network (LAN) port.

**NOTE:** The modification presented in this bulletin does not affect Fatigue Critical Structure (FCS).

## E. COMPLIANCE

This bulletin may be accomplished at any time, at the operator's discretion.

## F. APPROVAL

The technical aspects of this Service Bulletin are approved by: ANAC - Agência Nacional de Aviação Civil.

**NOTE:** If any aircraft listed in the SB effectivity has a modification or repair incorporated that is not of EMBRAER origin, and which affects the content of this Service Bulletin, the operator will take full responsibility for obtaining approval by a regulatory agency for any adaptation necessary before the incorporation of this Service Bulletin.

## G. ESTIMATED MANPOWER

This is an estimate of the manpower necessary to accomplish this Service Bulletin on a single aircraft.

It is intended for direct labor only, performed by experienced personnel, and does not include the time to plan, prepare, or inspect the work. Sealant, paint, or adhesive curing times are not included either.

It is assumed that all the tools, parts, and other means are readily available when necessary.

An adjustment to these values may be necessary to meet particular circumstances.

- Disassembly: None.
- Modification: 1.0 man-hour.
- Assemblage: None
- Test: None

## H. WEIGHT AND BALANCE

None.

## I. SOFTWARE ACCOMPLISHMENT SUMMARY

None.

## J. REFERENCES

AMM 190/( )	Aircraft Maintenance Manual PART II - 20-00-00 - STANDARD PRACTICES-AIRFRAME.
AMM 190/( )	Aircraft Maintenance Manual PART II - 45-45-00 - CENTRAL MAINTENANCE SYSTEM.
ITEM 190/( )	Illustrated Tool and Equipment Manual.
IB190-31-0001	INDICATING/RECORDING SYSTEM - APM OPTIONS AND SETTINGS GUIDE.

## K. OTHER PUBLICATIONS AFFECTED

AIPC 190/( )	Aircraft Illustrated Parts Catalog - 31-41-00 - INDICATING/RECORDING SYSTEMS.
IB190-31-0001	INDICATING/RECORDING SYSTEMS - APM OPTIONS AND SETTINGS GUIDE.
AFM 190/( )	Airplane Flight Manual.
AOM 190/( )	Airplane Operations Manual.
WM 190/( )	Wiring Manual - 31-41-54 - INDICATING/RECORDING SYSTEMS.

## **2. MATERIAL INFORMATION**

### **A. MATERIAL - PRICE AND AVAILABILITY**

For the acquisition of the Compact Disk necessary for changing the APM Options, this Service Bulletin refers to IB190-31- 0001 -APM OPTIONS AND SETTINGS GUIDE.

The applicable APM Options compact disk listed in the Information Bulletin IB190-31-0001 -APM OPTIONS AND SETTINGS GUIDE should be procured from the operator's inventories or ordered from Honeywell.

IB190-31-0001 - APM OPTIONS AND SETTINGS GUIDE is located at Flyembraer website ([www.Flyembraer.com](http://www.Flyembraer.com)) in the path described below:

- Log into the Flyembraer website, using your user name and password.
- Select the items using the sequence: Maintenance\ Technical Publications\ EMBRAER 190/195\ Maintenance Publications, Parts Publications and Service Bulletins\ IB - Information Bulletin\ 31 - Indicating and Recording Systems.
- Click the file IB190-31-0001 - APM OPTIONS AND SETTINGS GUIDE.

### **B. INDUSTRY SUPPORT INFORMATION**

Contact Honeywell for the necessary documentation or current material prices, availability and lead-times at one of the addresses below:

Honeywell Customer Care Center  
US & Canada(Toll Free): 1-800-601-3099  
International: 1-602-365-3099  
[www.myaerospace.com](http://www.myaerospace.com)

### **C. MATERIAL NECESSARY FOR EACH AIRCRAFT**

Refer to section [2. MATERIAL INFORMATION](#) of this bulletin.

### **D. MATERIAL NECESSARY FOR EACH SPARE**

None.

## **E. REIDENTIFIED PARTS**

None.

## **F. TOOLING - PRICE AND AVAILABILITY**

Whenever required, the necessary tooling presented in the AMM Tasks referred to in this bulletin, should be procured from the operator's inventories or ordered as spares.

Refer to ITEM GSE 270 for the applicable Remote Terminal Software version required for the accomplishment of this bulletin. The applicable Tools Compact Disk PN should be procured from the operator's inventories or ordered from Honeywell.

### 3. ACCOMPLISHMENT INSTRUCTIONS

The steps below outline the general accomplishment instructions.

- A. Make sure that the aircraft is safe for maintenance. Refer to the applicable AMM TASK 20-00-00-910-801-A/200 - Aircraft Maintenance Safety Procedures - Standard Procedures.
- B. Make sure that the version of the remote terminal software installed into Personal Computer (PC) is applicable to LOAD version installed in the aircraft. Refer to ITEM GSE 270.
- C. Do the full load of the APM Options according to AMM TASK 45-45-00-470-801-A/200 - Aircraft Field-Loadable Software Uploading. Refer to [2.A. MATERIAL - PRICE AND AVAILABILITY](#) for APM Options selection information.
- D. Use the Cursor Control Device (CCD) to select the system menu on the Multi-Function Display (MFD). Then select Sys Config. This is Page 001 Configuration Part Number. See if the APM Options part number shown is the same as the one installed in [Step 3.C](#).
- E. Restore the aircraft to normal.
- F. Enter the accomplishment of this bulletin in the applicable documents.

**NOTE:** 1) Please inform us by e-mail [fleet.reliability@embraer.com.br](mailto:fleet.reliability@embraer.com.br) of the aircraft manufacturer serial number and the SB incorporation date, specifying the SB Part(s) incorporated or whether the whole SB has been incorporated. This will enable Embraer to consider your aircraft configuration when providing future modifications.

- 2) To formally inform that the SB has been incorporated fleet-wide or that the SB will not be incorporated, so that Embraer can update the affected technical publications, use the “Service Bulletin Full-Fleet Incorporation Report” form, which is available on the Flyembraer portal (<http://www.flyembraer.com>).
- 3) Use the attached “Service Bulletin Evaluation” form to send us your comments regarding this SB. Your feedback will be much appreciated as an aid for us to improve the quality of the SBs.







## SERVICE BULLETIN EVALUATION

THE PURPOSE OF THIS FORM IS TO COLLECT DATA THAT WILL BE USED TO IMPROVE THE QUALITY OF OUR SERVICE BULLETINS. PLEASE FILL IN FORM AND RETURN IT TO:

EMBRAER - EMPRESA BRASILEIRA DE AERONÁUTICA S.A.  
EFTC - SERVICE BULLETIN ENGINEERING  
AV. BRIGADEIRO FARIA LIMA, 2170  
SÃO JOSÉ DOS CAMPOS - SP - 12227-901  
BRASIL  
Fax: + 55 12 3927-6600 (ext. 1624)  
e-mail: fleet.reliability@embraer.com.br

S.B. Title:

S.B.: (Number / Rev.)

Operator:

### SB Implementation Report

Aircraft Serial Number or Registration Number:

Incorporation Date:

Aircraft Flight Hours:

Aircraft Landings:

### POST-ACCOMPLISHMENT EVALUATION: (Check applicable squares below)

ESTIMATED MANPOWER: [ ] OK [ ] NOT OK (Explain Below)

MATERIAL & KITS: [ ] OK [ ] NOT OK (Explain Below)

ACCOMPLISHMENT INSTRUCTIONS: [ ] OK [ ] NOT OK (Explain Below)

FIGURES: [ ] OK [ ] NOT OK (Explain Below)

SB GENERAL EVALUATION: [ ] OK [ ] NOT OK (Explain Below)

### COMMENTS: (Bulletin quality/ Difficulties found at the time of incorporation/ Suggested improvements/ Other)

Organization:

Fax:

Phone:

E-mail:

Address:

Prepared by:(Name/Title)

Date:

