TO 1300i-2-27JG-50-1

TECHNICAL MANUAL

JOB GUIDE
ORGANIZATIONAL MAINTENANCE

FLIGHT CONTROLS FLAPS
(27-50-00 THROUGH 27-50-03)

USAF SERIES
300i
AIRCRAFT

MCDONNELL DOUGLAS CORPORATION
MILITARY TRANSPORT AIRCRAFT
F33657-81-C-2108
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Basic and all changes have been merged to make this a complete publication.
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T-2 **1 FEBRUARY 2025**

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands.

Dates of issue for original and changed pages are:

Original . . . . . 0 . . . . . 1 Feb 25

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 114 CONSISTING OF THE FOLLOWING:

Page No.	* Change No.	Page No.	* Change No.
Title thru T-2	0		
A.	0		
B blank	0		
i	0		
ii blank	0		
iii thru iv	0		
1-1 thru 1-2	0		
2-1 thru 2-10	0		
2-11 blank	0		
2-12 thru 2-47	0		
2-48 blank	0		
2-49 thru 2-63	0		
2-64 blank	0		
2-65 thru 2-68	0		
2-69 blank	0		
2-70	0		
2-71 blank	0		
2-72 thru 2-80	0		
2-81 blank	0		
2-82 thru 2-103	0		
2-104 blank	0		

*Zero in this column indicates an original page.

TABLE OF CONTENTS

INTRODUCTION

SCOPE.

This manual contains maintenance procedures for the operational checkout, repair, and operation of flight controls flap components.

MODEL(S) COVERED.

All

ABBREVIATIONS.

The following is a list of non-standard abbreviations used throughout this manual:

EPC	Electrical Power Center
LS	Line Select
MBIT	Maintenance Built-In Test
MFD	Multifunction Display
PLCS	Places
SC/EFC	Spoiler Control/Electronic Flap Computer
WAP	Warning and caution Annunciator Panel

CHANGE REQUEST.

Recommended changes to this manual shall be submitted in accordance with TO 00-5-1.

300i TO INFORMATION.

General 300i TO/eTO, TO Manager, Supplement and finalized Recommended Change (RC) information can be found in the Enhanced Technical Information Management System (ETIMS), System of Record.

LIST OF TIME COMPLIANCE TECHNICAL ORDERS (TCTO).

This list of TCTO's contains all current TCTO's that affect the technical content of text or illustrations found in this manual.

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY

SECTION 1

GENERAL INFORMATION (27-50-00)

1-1. GENERAL INFORMATION.

1-2. This section provides general information that is essential for ensuring complete and safe maintenance procedures contained throughout this manual.

1-3. When operating auxiliary pump below 15 degrees Fahrenheit a 30 seconds on/30 seconds off duty cycle for a maximum 10 cycles may be required to reach a full hydraulic pressure of 3800 to 4200 psi. Allow 10 minutes for cooling and repeat cycle.

1-4. Hydraulic system No. 2 may require 45 seconds before reaching a full hydraulic pressure of 3800 to 4200 psi.

1-5. All adhesive sealants, sealants, and compounds used in this manual are listed with a primary part number and/or primary specification number. Any suitable substitutes and/or interchangeable adhesive sealants, sealants, and compounds may be used unless otherwise specified. Suitable substitutes and/or interchangeable adhesive sealants, sealants, and compounds are listed in the system peculiar corrosion control manual (Refer to TO 1300i-23, Chapter 1, Section III).

1-6. GENERAL WARNINGS, CAUTIONS, AND NOTES.

WARNING

All flight control surfaces and thrust reversers shall be clear of personnel and equipment prior to applying or removing hydraulic power. Failure to comply may cause injury to personnel and damage to aircraft.

CAUTION

- Air in a hydraulic system can cause numerous malfunctions, from a total system failure to a minor indication problem. When you suspect air has been inducted into a system by removing a hydraulic component or a line, refer to the hydraulic system bleed procedure (12-29-08, task 08-1). Failure to comply may cause damage to aircraft.

- Slats shall be in the retracted position during Auxiliary Power Unit (APU) operations. The APU may be started with slats extended, however slats shall be set to the fully retracted position within 30 seconds of APU stabilization. When flaps are required to be extended during APU operations, Slats Disabled/Flap Operation shall be used (27-50-03, task 03-2). Failure to comply may cause damage to aircraft.

SECTION 2

FLAPS SYSTEM OPERATIONAL CHECKOUT (27-50-01)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

	Task
All	All

Additional information:

This procedure consists of the following tasks:

01-1. Flaps system operational checkout primary method.
01-2. Flaps system operational checkout alternate method.
01-3. Flaps droop travel operational checkout.

Additional data:

	Task
TO 1300i-2-23JG-40-1	01-2, 01-3
TO 1300i-2-27FI-00-1	All
TO 1300i-2-29JG-20-1	01-2, 01-3
TO 1300i-2-31FI-00-1	01-2
TO 1300i-2-31JG-60-1	01-2
TO 1300i-2-71JG-00-1	01-1

Personnel recommended:

	Task
One	01-1, 01-2
Two	01-3

	Task
Person (A) performs task.	
Person (B) assists person (A).	

Safety conditions:

	Task
WARNING	
Ensure flight control surfaces are clear of support equipment and personnel prior to applying hydraulic power. Failure to comply may cause injury to personnel and damage to aircraft.	All
CAUTION	
• When operational checkouts are being performed in conjunction with a flap removal and installation, an initial flap deployment shall be performed at increments that allow for an in process inspection of the knuckle fairings for possible contact that may occur with the forward hinge fairing. At any time during the deployment it appears there will be a contact between the fairings, the procedure shall be stopped and engineering contacted for further instructions. Failure to comply may cause damage to aircraft.	All
• All four hydraulic systems shall be pressurized when operating the flaps. Flaps can be damaged during flap retraction without all four hydraulic systems operating. Failure to comply may cause damage to aircraft.	All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
NA	--	--	--	--

Supplies:

Nomenclature	PN	Specification	Qty	Task
Chalk	--	--	AR	01-3

01-1. FLAPS SYSTEM OPERATIONAL CHECKOUT PRIMARY METHOD.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

CAUTION

When electrical or hydraulic power is lost during flap system operation, set **FLAPS** switch on **FCS ACTR** panel to **OFF** before reapplying electrical or hydraulic power. Failure to comply may cause damage to aircraft.

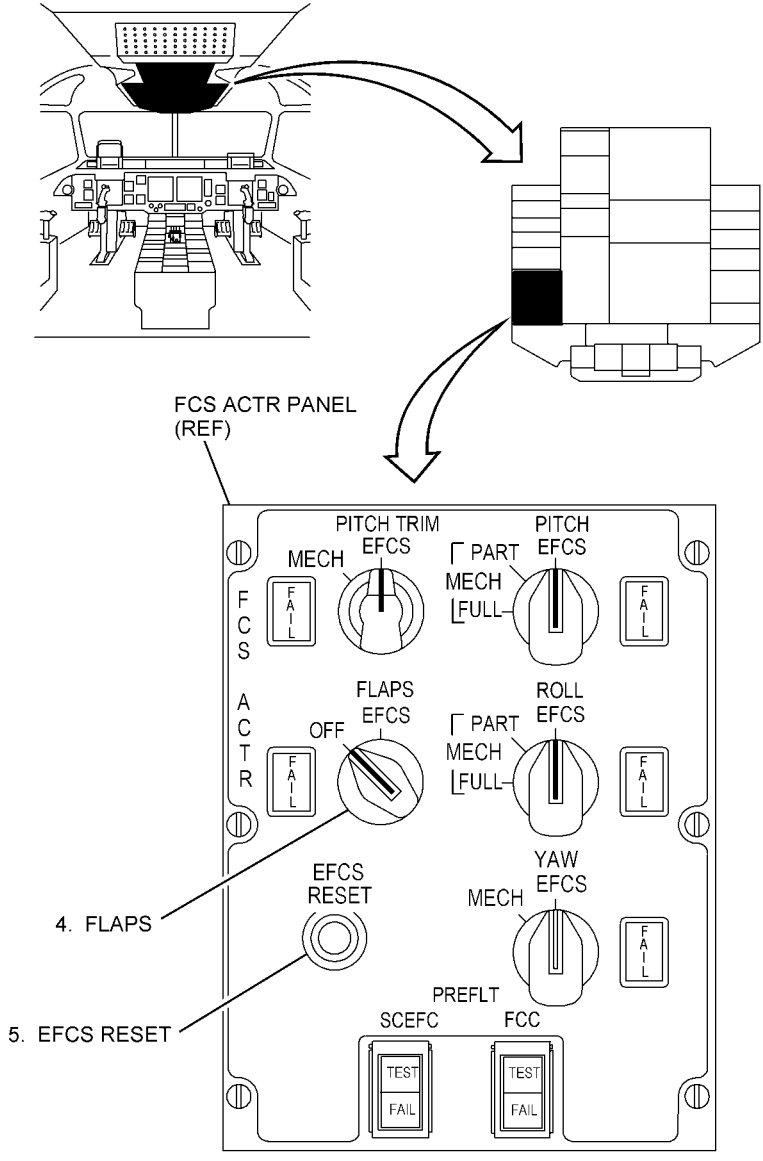
3. Perform power plant operational checkout - checklist (TO 1300i-2-71JG-00-1, 71-00-01, tasks 01-1, 01-2, and 01-3).

NOTE

All four hydraulic systems are required for flap movement.

4. Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

5. Press **EFCS RESET** button.



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6. Push **DSBL** switchlight on flap/slat module.

    - **DSBL** light comes on (27-80-AA-00).

7. Set **FLAP INDEX** switch on flap/slat module to **DECR** until flap index position indicator indicates **0**.

8. Set flap/slat handle on flap/slat module to **FULL**.

    - Flaps extend in 20.25 seconds (27-52-AB-_).

    - Flaps show in extended position on flap index position indicator (27-51-AF-00).

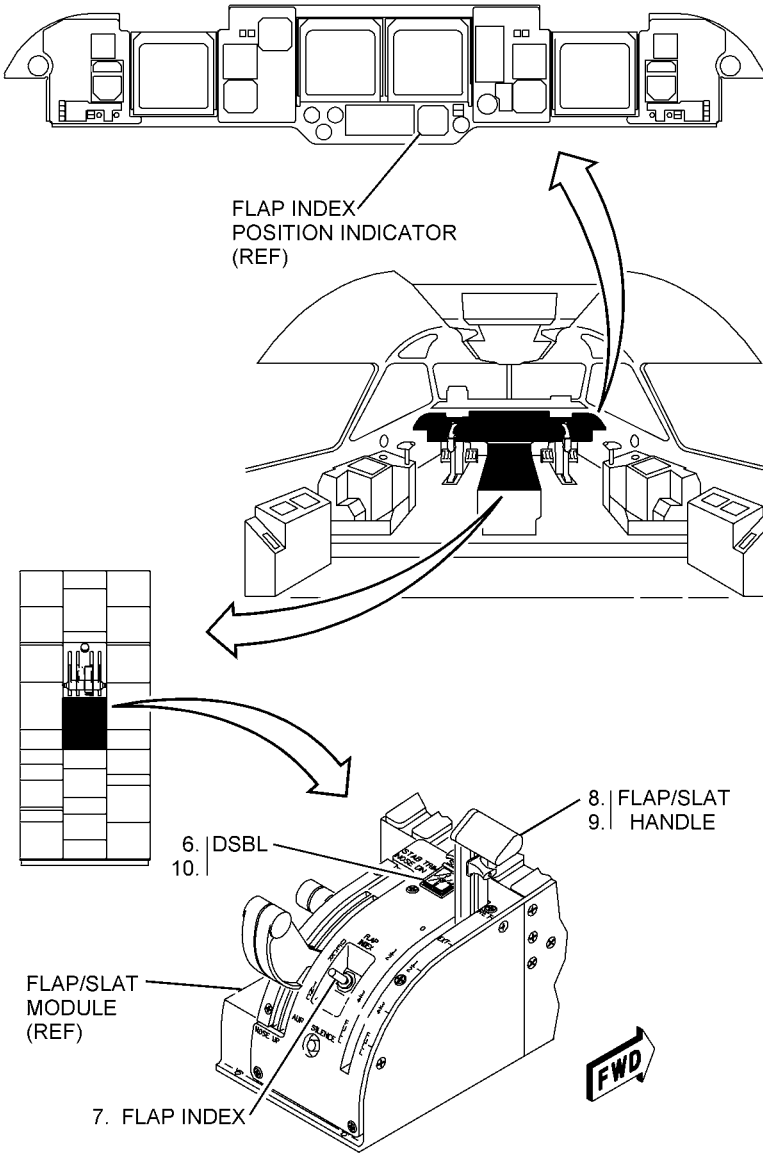
9. Set flap/slat handle on flap/slat module to **UP/RET**.

    - Flaps retract in 13.5 seconds (27-52-AB-_).

    - Flaps show in retracted position on flap index position indicator (27-51-AF-00).

10. Push **DSBL** switchlight on flap/slat module.

    - **DSBL** light goes off (27-80-AA-00).



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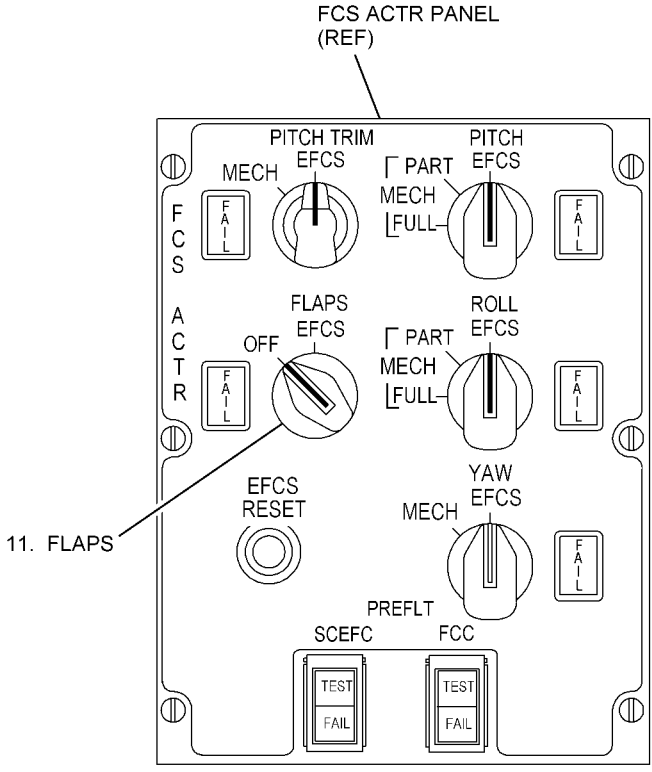
11. Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF**.

12. Perform power plant operational checkout - checklist (TO 1300i-2-71JG-00-1, 71-00-01, task 01-4).



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01-2. FLAPS SYSTEM OPERATIONAL CHECKOUT ALTERNATE METHOD.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

3. Perform maintenance interphone operation (23-41-02, task 02-3).

4. Operate multifunction displays and select **CFG** configuration (31-61-02, tasks 02-1 or 02-2).

WARNING

Verify flap surfaces are clear prior to movement. Failure to comply may cause injury to personnel or damage to aircraft.

CAUTION

- When electrical or hydraulic power is lost during flap system operation, set **FLAPS** switch on **FCS ACTR** panel to **OFF** before reapplying electrical or hydraulic power. Failure to comply may cause damage to aircraft.

- When **SCEFC 1, 2** are displayed on Warning and caution Annunciator Panel (WAP), ensure Spoiler Control/Electronic Flap Computer (SC/EFC) system passes Maintenance Built-In Test (MBIT) prior to operating flaps with auxiliary hydraulic pumps. Failure to comply may cause damage to aircraft.

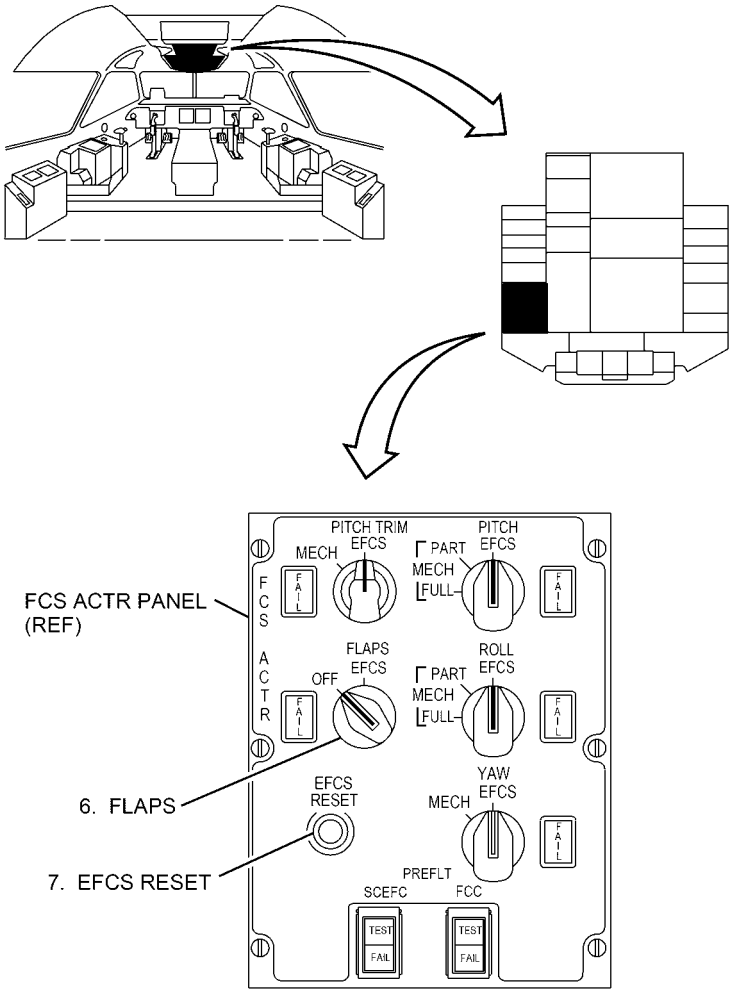
NOTE

When operating flaps during SC/EFC rig or initialization, flaps can be operated with **SCEFC 1, 2** displayed on WAP.

5. Operate auxiliary hydraulic system (29-20-01, task 01-1).

6. Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

7. Press **EFCS RESET** button.



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8. Push **DSBL** switchlight on flap/slat module.

   - **DSBL** light comes on (27-80-AA-00).

9. Set **FLAP INDEX** switch on flap/slat module to **DECR** until flap index position indicator indicates **0**.

WARNING

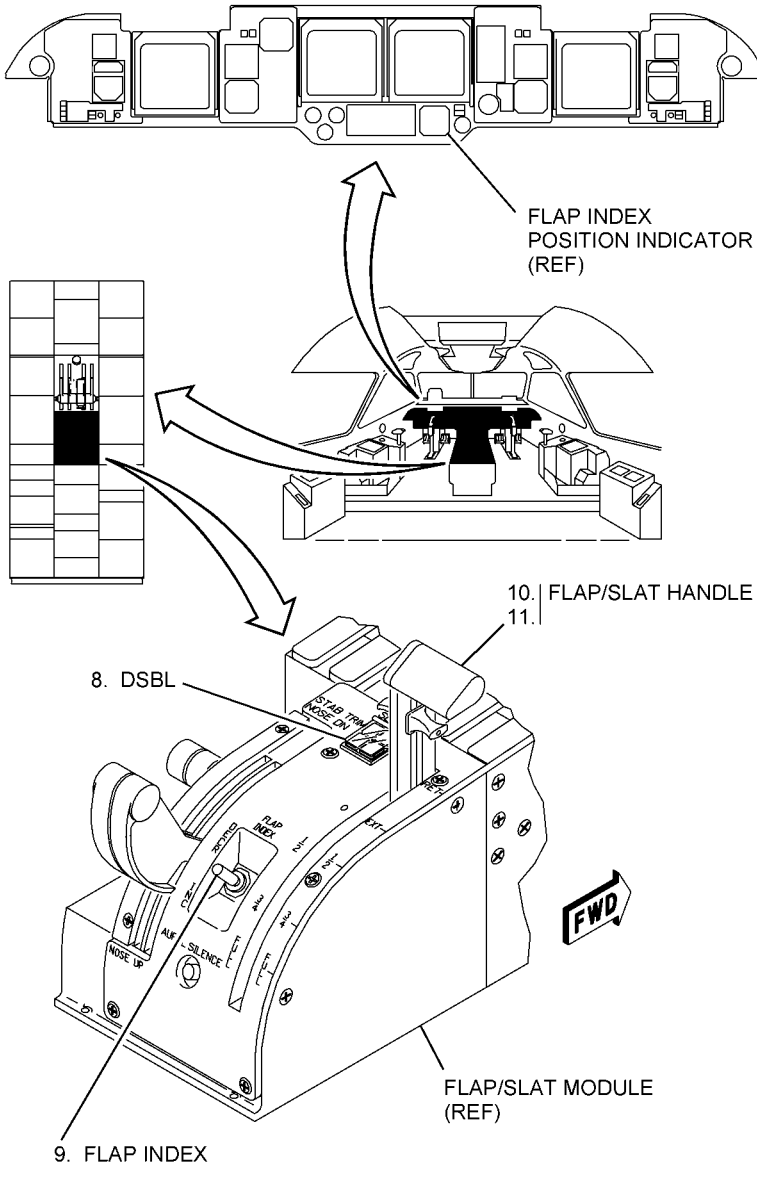
All flight control surfaces shall be clear of personnel and equipment prior to movement. Failure to comply may cause injury to personnel or damage to aircraft.

10. Set flap/slat handle on flap/slat module to **1/2**.

    - Flap index position indicator reads approximately 8.0 degrees (27-53-AA-00).
    - Multifunction Display (MFD) displays **FLAPS 1/2** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 00** (31-61-AA-01, 31-61-AA-02).

11. Set flap/slat handle to **3/4**.

    - Flap index position indicator reads approximately 18.0 degrees (27-53-AA-00).
    - MFD displays **FLAPS 3/4** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 00** (31-61-AA-01, 31-61-AA-02).



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12. Set flap/slat handle to **FULL**.

    - Flap index position indicator reads approximately 20.0 degrees (27-53-AA-00).
    - MFD displays **FLAPS FULL** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 00** (31-61-AA-01, 31-61-AA-02).

13. Set flap/slat handle to **UP/RET**.

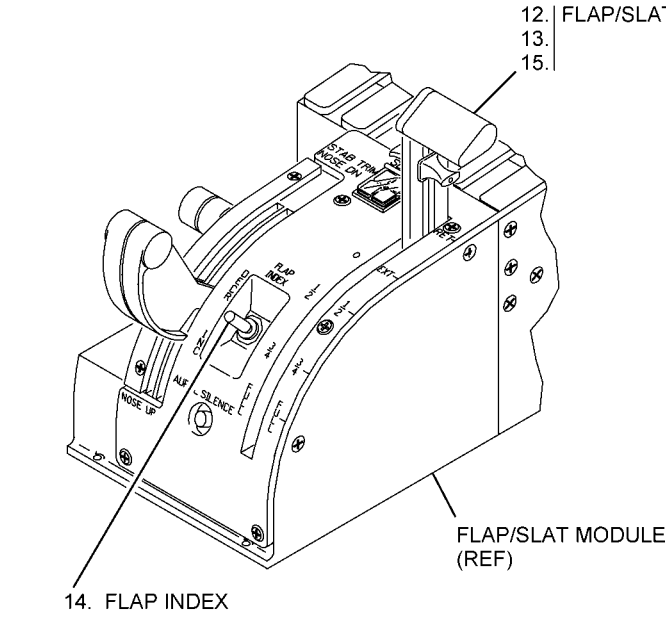
    - Flap index position indicator reads **UP** (27-53-AA-00).
    - MFD displays **FLAPS UP** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 00** (31-61-AA-01, 31-61-AA-02).

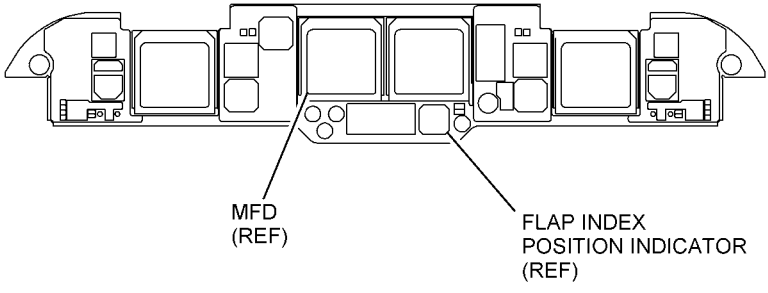
14. Set **FLAP INDEX** switch to **INCR** until flap index position indicator indicates **100**.

    - Flap index position indicator reads **100** (27-53-AA-00).
    - Flap index position indicator reads **UP** (27-53-AA-00).

15. Set flap/slat handle to **1/2**.

    - Flap index position indicator reads approximately 20.0 degrees (27-53-AA-00).
    - MFD displays **FLAPS 1/2** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 100** (31-61-AA-01, 31-61-AA-02).





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16. Set flap/slat handle to **3/4**.

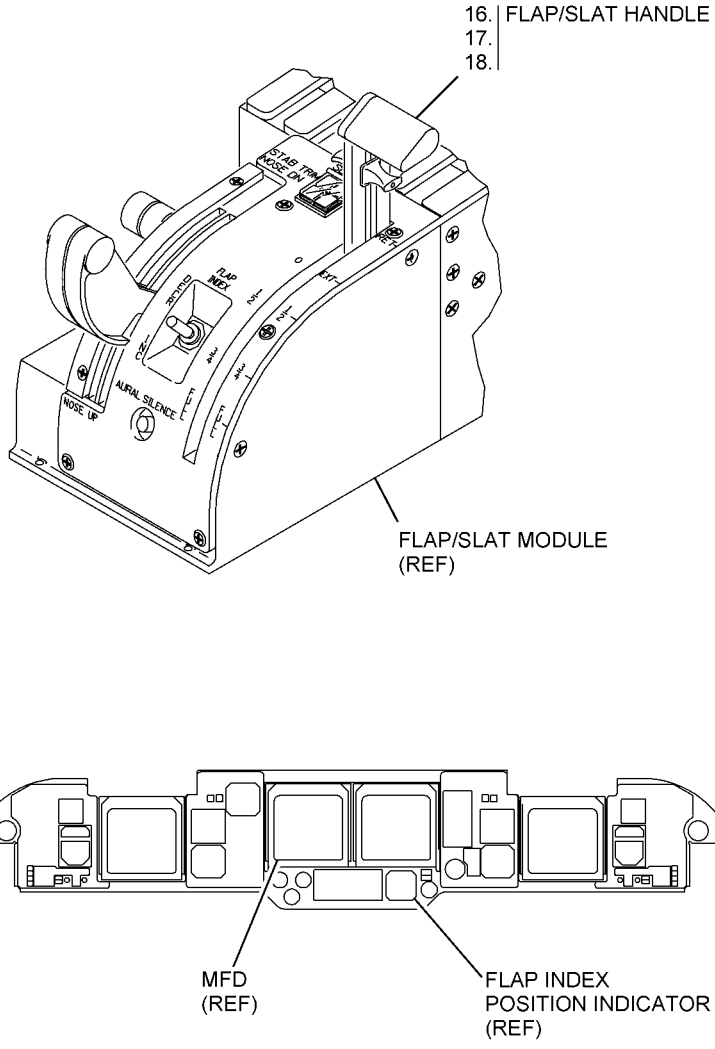
    - Flap index position indicator reads approximately 32.5 degrees (27-53-AA-00).
    - MFD displays **FLAPS 3/4** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 100** (31-61-AA-01, 31-61-AA-02).

17. Set flap/slat handle to **FULL**.

    - Flap index position indicator reads approximately 40.5 degrees (27-53-AA-00).
    - MFD displays **FLAPS FULL** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 100** (31-61-AA-01, 31-61-AA-02).

18. Set flap/slat handle to **UP/RET**.

    - Flap index position indicator reads **UP** (27-53-AA-00).
    - MFD displays **FLAPS UP** (31-61-AA-01, 31-61-AA-02).
    - MFD displays **INDEX 100** (31-61-AA-01, 31-61-AA-02).



ICN-88277-G2750031-010-01

19. Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF**.

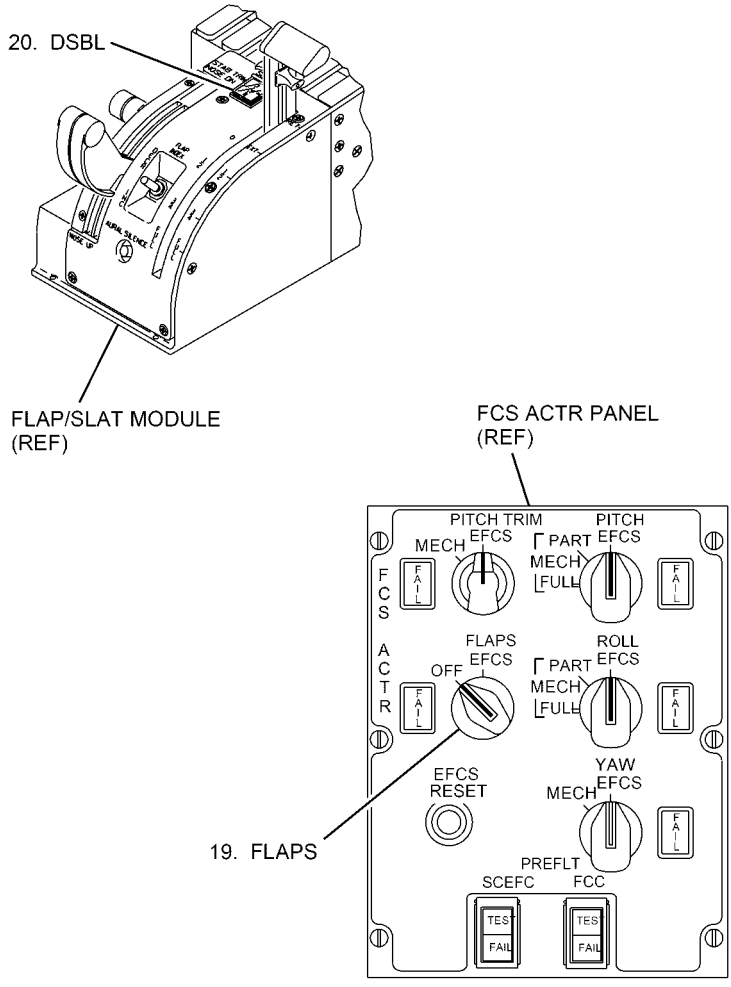
20. Push **DSBL** switchlight on flap/slat module.

    - **DSBL** light goes off (27-80-AA-00).

21. Shutdown auxiliary hydraulic system (29-20-01, task 01-2).

22. Perform maintenance interphone shutdown (23-41-02, task 02-4).

23. Shutdown multifunction displays system (31-61-02, task 02-3 or 02-4).



ICN-88277-G2750033-009-01

01-3. FLAPS DROOP TRAVEL OPERATIONAL CHECKOUT.

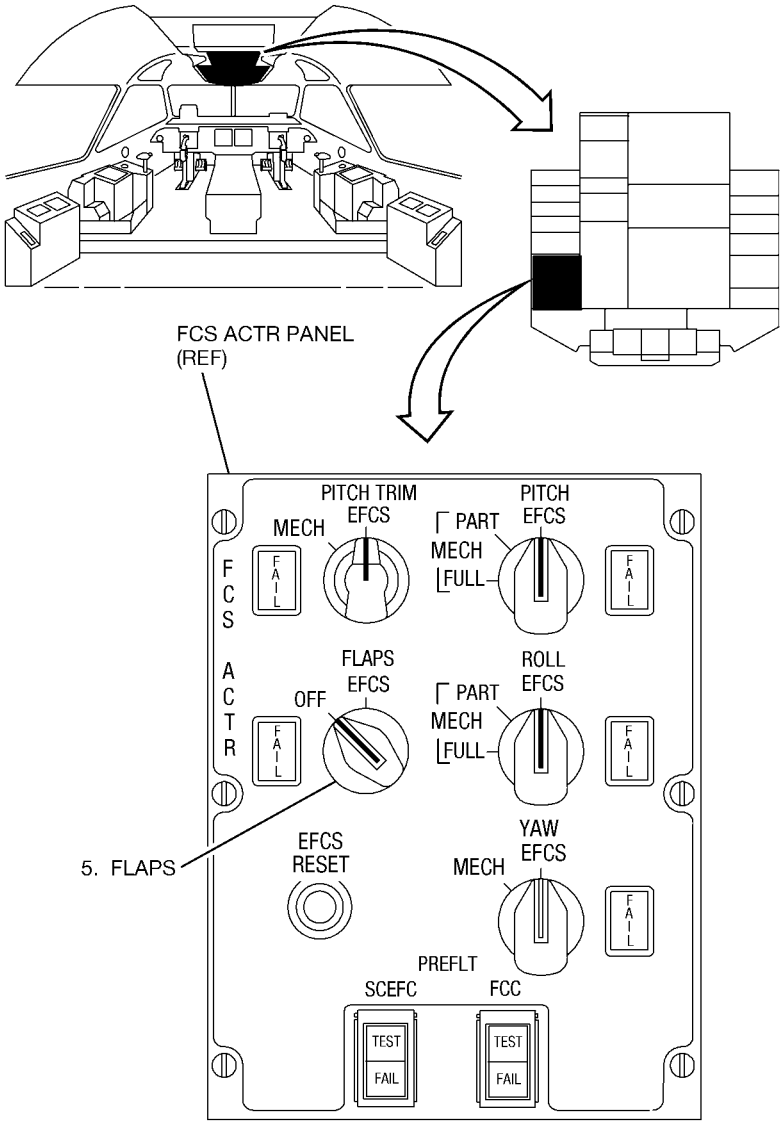
1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

3. Perform maintenance interphone operation (23-41-02, task 02-3).

4. Operate auxiliary hydraulic system (29-20-01, task 01-1).

5. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

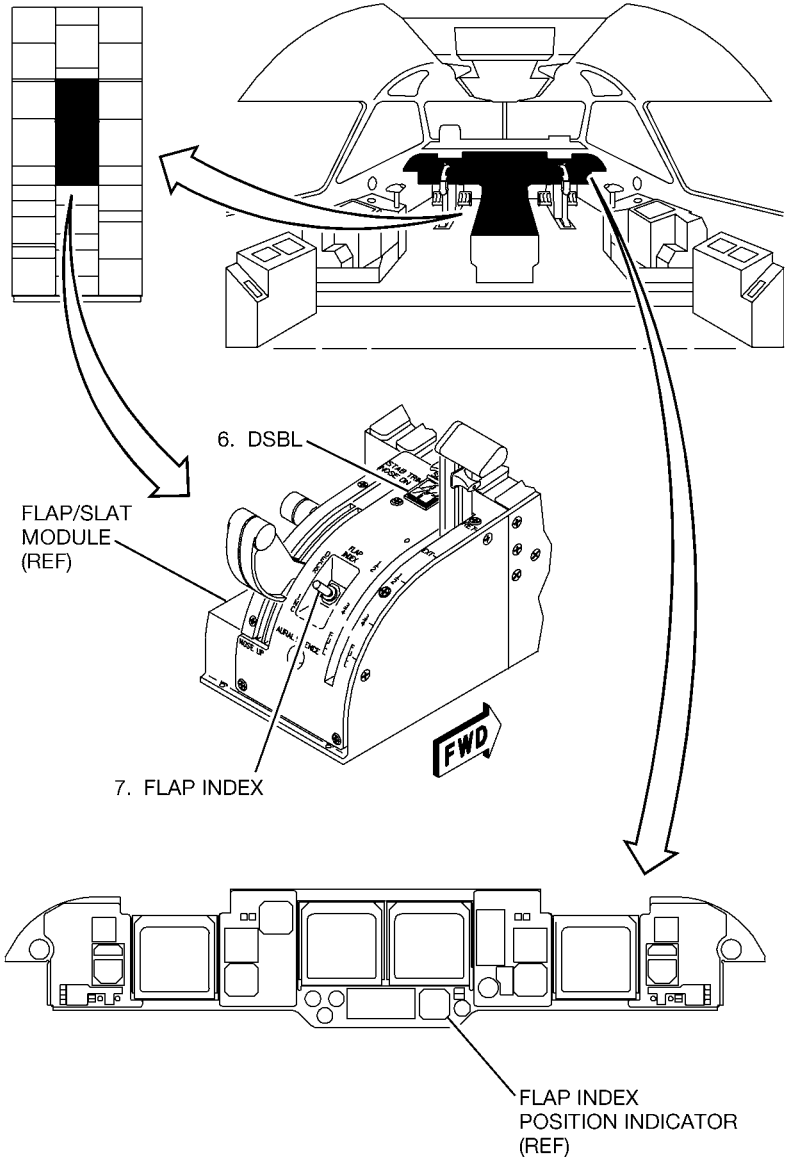


ICN-88277-G2750056-004-01

6. (A) Push **DSBL** switchlight on flap/slat module.

    - **DSBL** light comes on (27-80-AA-00).

7. (A) Set **FLAP INDEX** switch to **DECR** until flap index position indicator indicates **0**.



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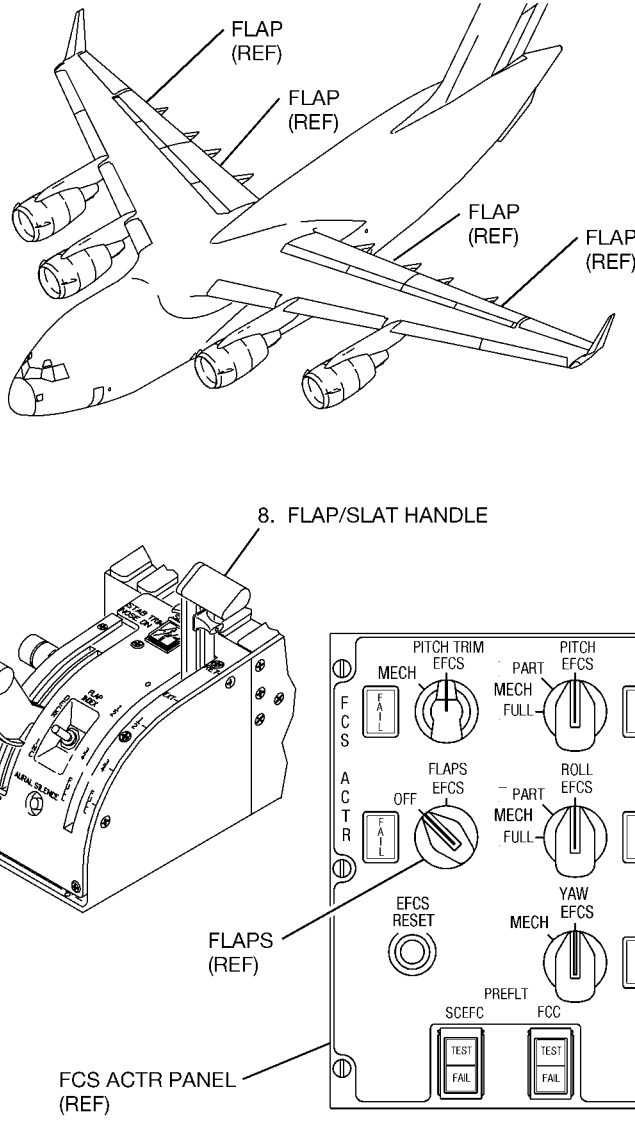
8. (A) Set flap/slat handle to **1/2**; while flaps are in motion, set **FLAPS** switch on **FCS ACTR** panel to **OFF**.

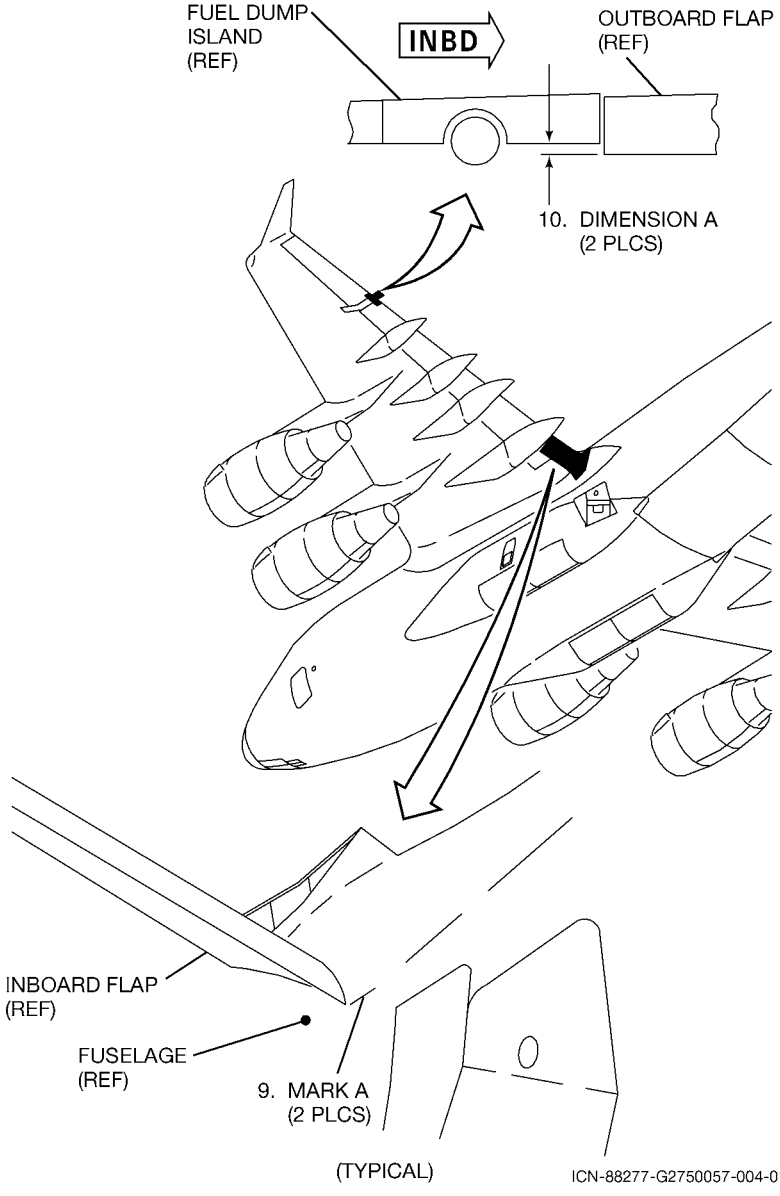
    - Flaps come to a complete stop (27-51-AA-00).



ICN-88277-G2750062-004-01

9. (A,B) Make chalk mark A on fuselage at inboard trailing edge of inboard flaps.

10. (A,B) Measure and record Dimension A between inboard trailing edge of fuel dump islands and outboard trailing edge of outboard flaps.


FUEL DUMP
ISLAND
(REF)
INBD
OUTBOARD FLAP
(REF)
10. DIMENSION A
(2 PLCS)
INBOARD FLAP
(REF)
FUSELAGE
(REF)
9. MARK A
(2 PLCS)
(TYPICAL)
ICN-88277-G2750057-004-01

NOTE

Wait 15 minutes before repeating measurements to allow enough time for flaps to droop.

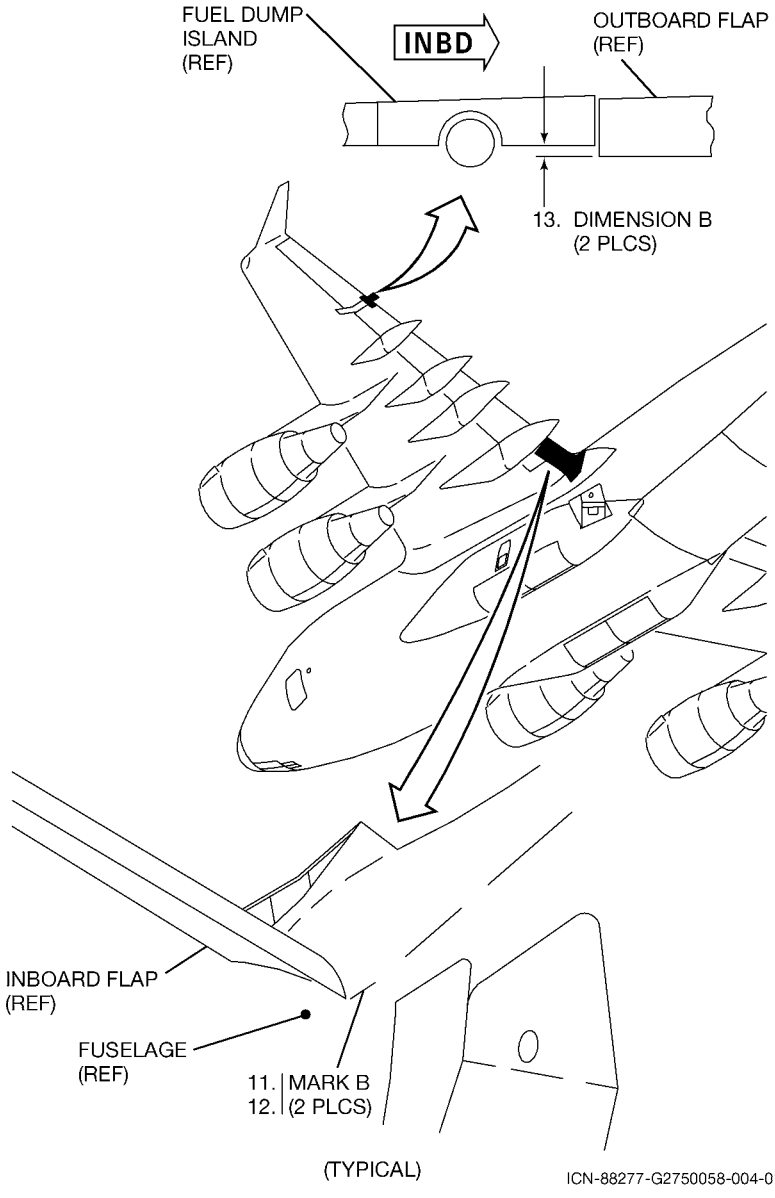
11. (A,B) Make chalk mark B on fuselage at inboard trailing edge of inboard flaps.

12. (A,B) Measure dimension between mark A and mark B on fuselage.

    - Dimension between mark A and mark B should not exceed 2.2 inches (27-52-AA-_).

13. (A,B) Measure and record dimension B between inboard trailing edge of fuel dump islands and outboard trailing edge of outboard flaps.

    - Measurement A and measurement B should not exceed 1.9 inches (27-52-AA-_).


FUEL DUMP
ISLAND
(REF)
INBD
OUTBOARD FLAP
(REF)
13. DIMENSION B
(2 PLCS)
INBOARD FLAP
(REF)
FUSELAGE
(REF)
11. MARK B
12. (2 PLCS)
(TYPICAL)
ICN-88277-G2750058-004-01

14. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

15. (A) Press **FLAP INDEX** switch on flap/slat module until flap index position indicator indicates **100**.

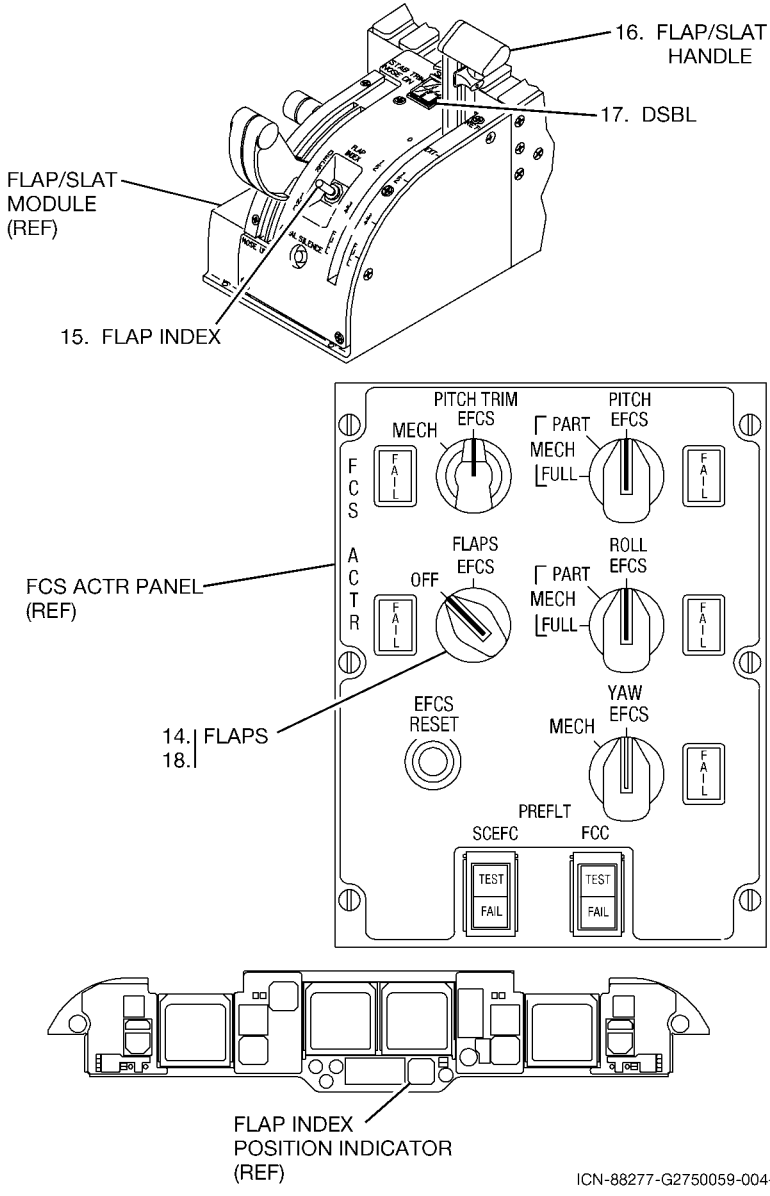
16. (A) Set flap/slat handle to **UP/RET**.

17. (A) Push **DSBL** switch.

    - **DSBL** light goes off (27-80-AA-00).

18. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF**.

19. Shutdown auxiliary hydraulic system (29-20-01, task 01-2).



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20. (A) Open **SCEFC 1** circuit breaker on overhead circuit breaker panel row **H**, column **28**.

    - **SCEFC 1** is displayed on Warning and caution Annunciator Panel (WAP).

21. (A) Open **SCEFC 2** circuit breaker on overhead circuit breaker panel row **H**, column **29**.

    - **SCEFC 2** is displayed on WAP.

NOTE

When WAP annunciation message appears, **MASTER CAUTION** switchlight on glareshield shall be pressed.

22. (A) Press **MASTER CAUTION** switchlight on glareshield.

NOTE

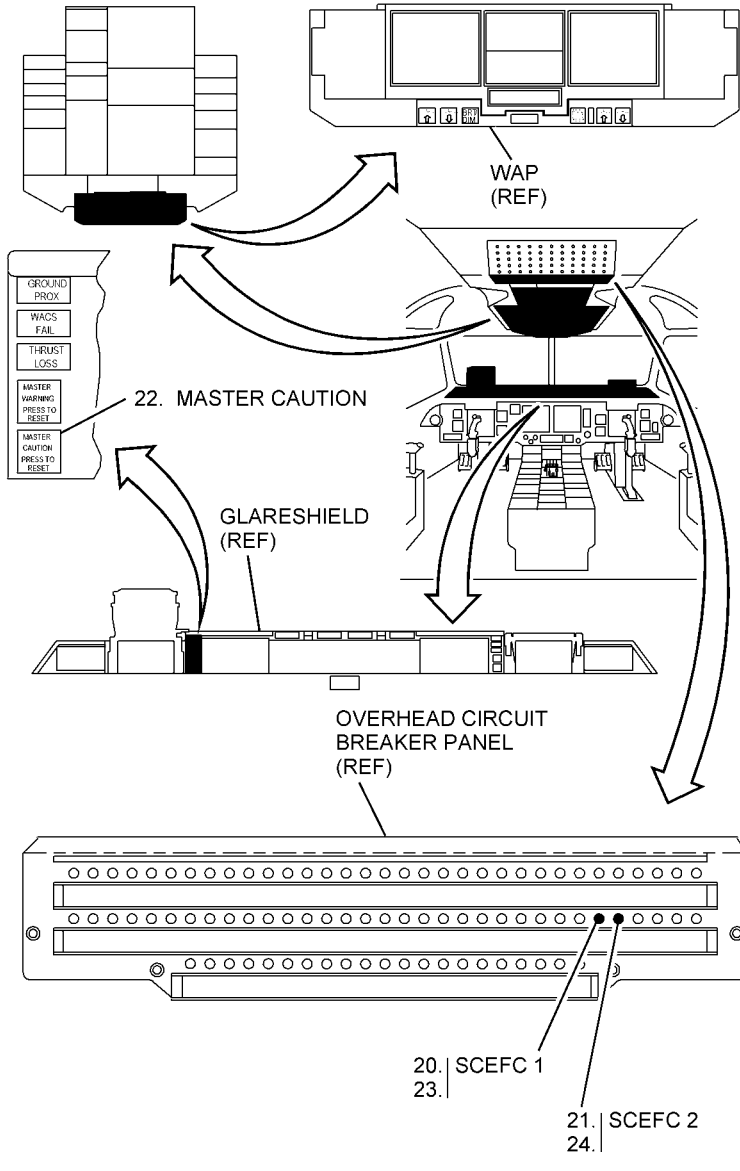
Wait 30 seconds prior to closing circuit breakers.

23. (A) Close **SCEFC 1** circuit breaker on overhead circuit breaker panel row **H**, column **28**.

    - **SCEFC 1** is not displayed on WAP.

24. (A) Close **SCEFC 2** circuit breaker on overhead circuit breaker panel row **H**, column **29**.

    - **SCEFC 2** is not displayed on WAP.



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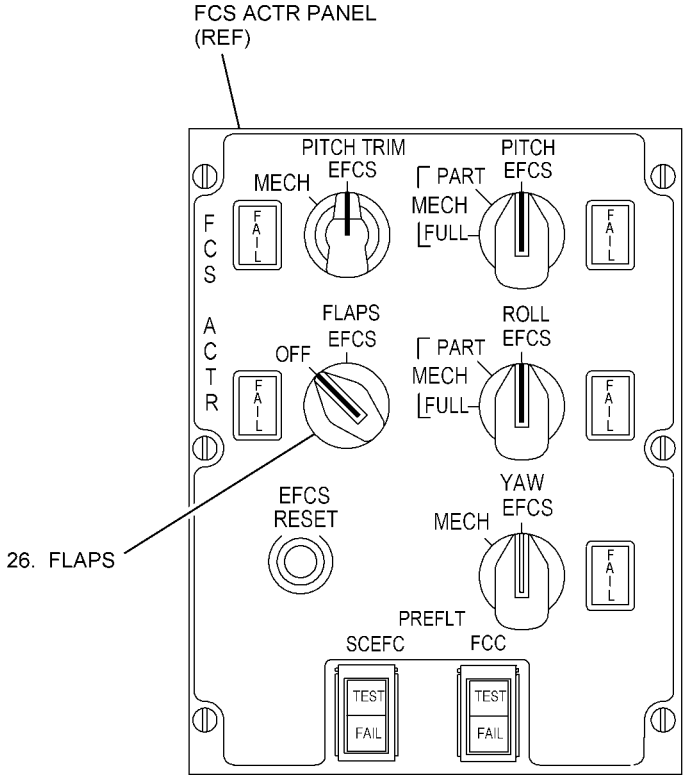
25. Operate auxiliary hydraulic system (29-20-01, task 01-1).

26. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

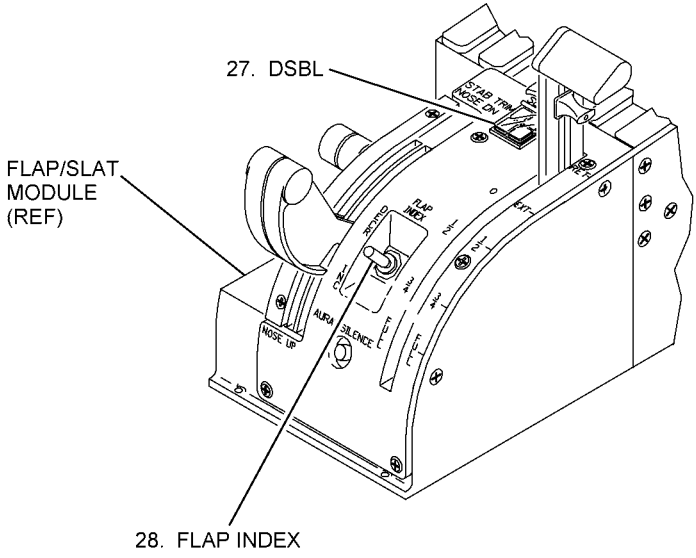


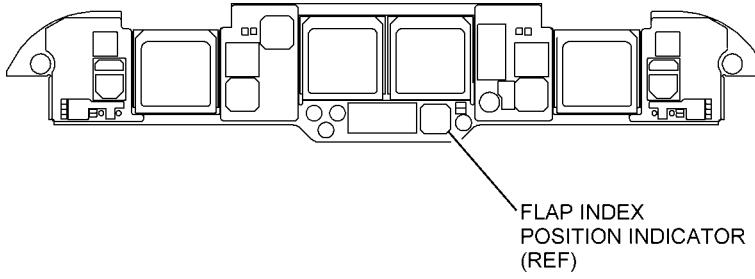
ICN-88277-G2750065-002-01

27. (A) Push **DSBL** switchlight on flap/slat module.

    - **DSBL** light comes on (27-80-AA-00).

28. (A) Set **FLAP INDEX** switch to **DECR** until flap index position indicator indicates **0**.

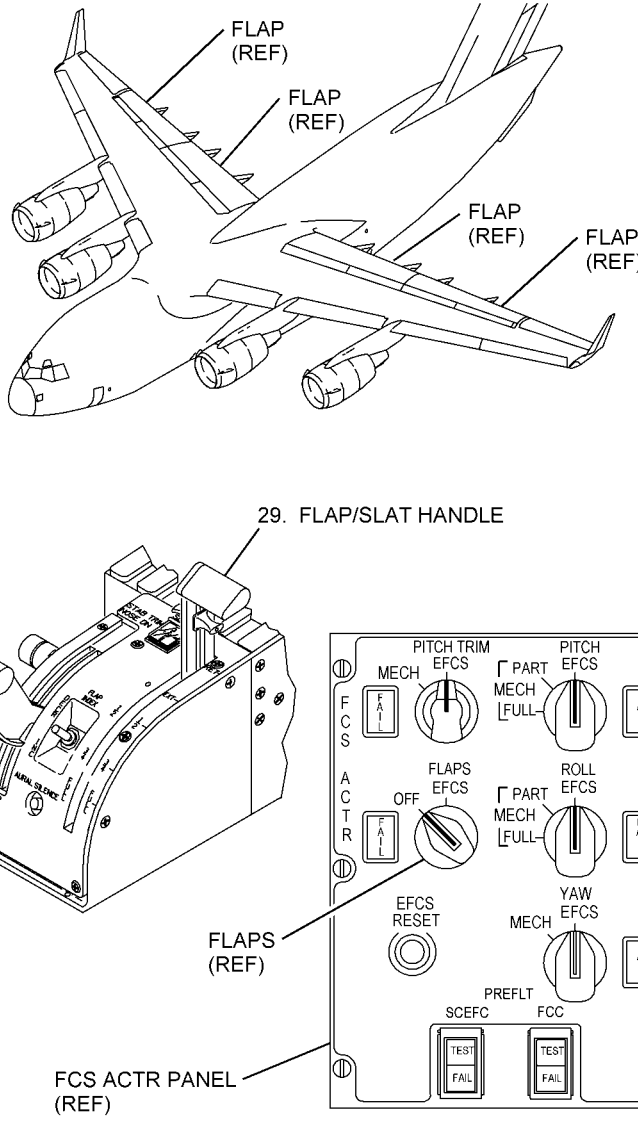




ICN-88277-G2750066-002-01

29. (A) Set flap/slat handle to **1/2**; while flaps are in motion, set **FLAPS** switch on **FCS ACTR** panel to **OFF**.

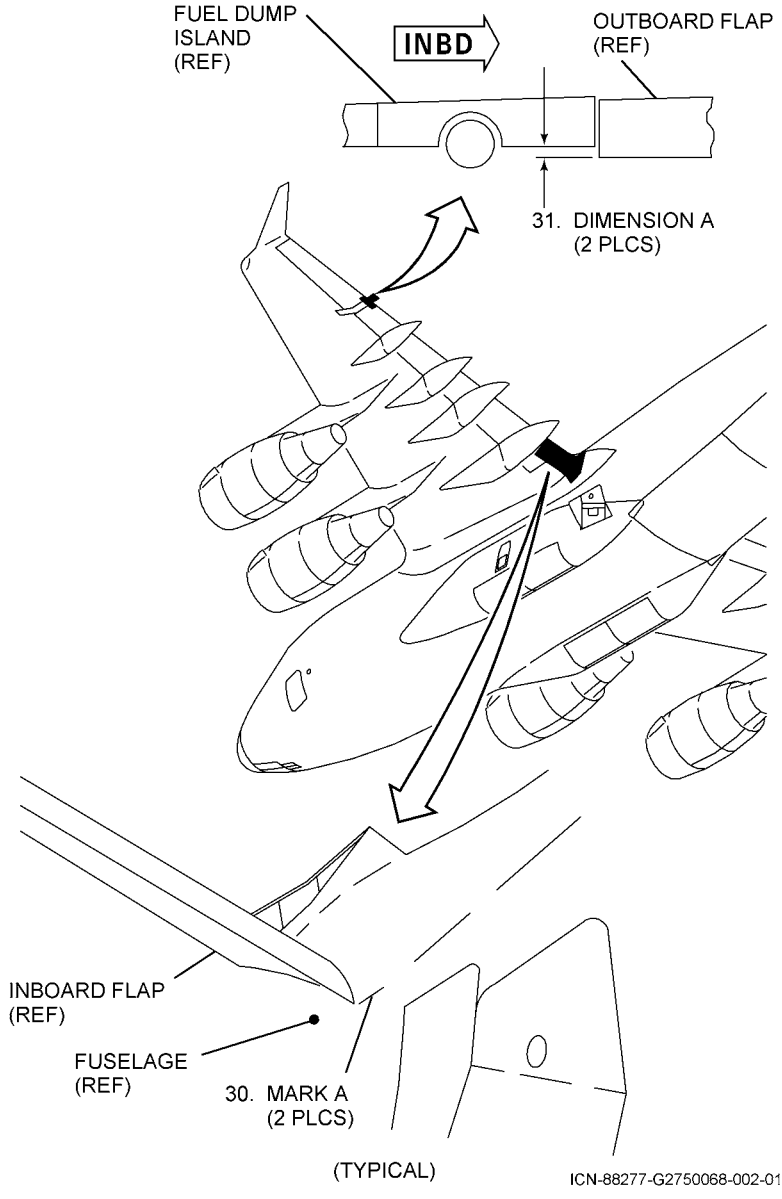
    - Flaps come to a complete stop (27-51-AA-00).



ICN-88277-G2750067-002-01

30. (A,B) Make chalk mark A on fuselage at inboard trailing edge of inboard flaps.

31. (A,B) Measure and record Dimension A between inboard trailing edge of fuel dump islands and outboard trailing edge of outboard flaps.


FUEL DUMP
ISLAND
(REF)
INBD
OUTBOARD FLAP
(REF)
31. DIMENSION A
(2 PLCS)
INBOARD FLAP
(REF)
FUSELAGE
(REF)
30. MARK A
(2 PLCS)
(TYPICAL)
ICN-88277-G2750068-002-01

NOTE

Wait 15 minutes before repeating measurements to allow enough time for flaps to droop.

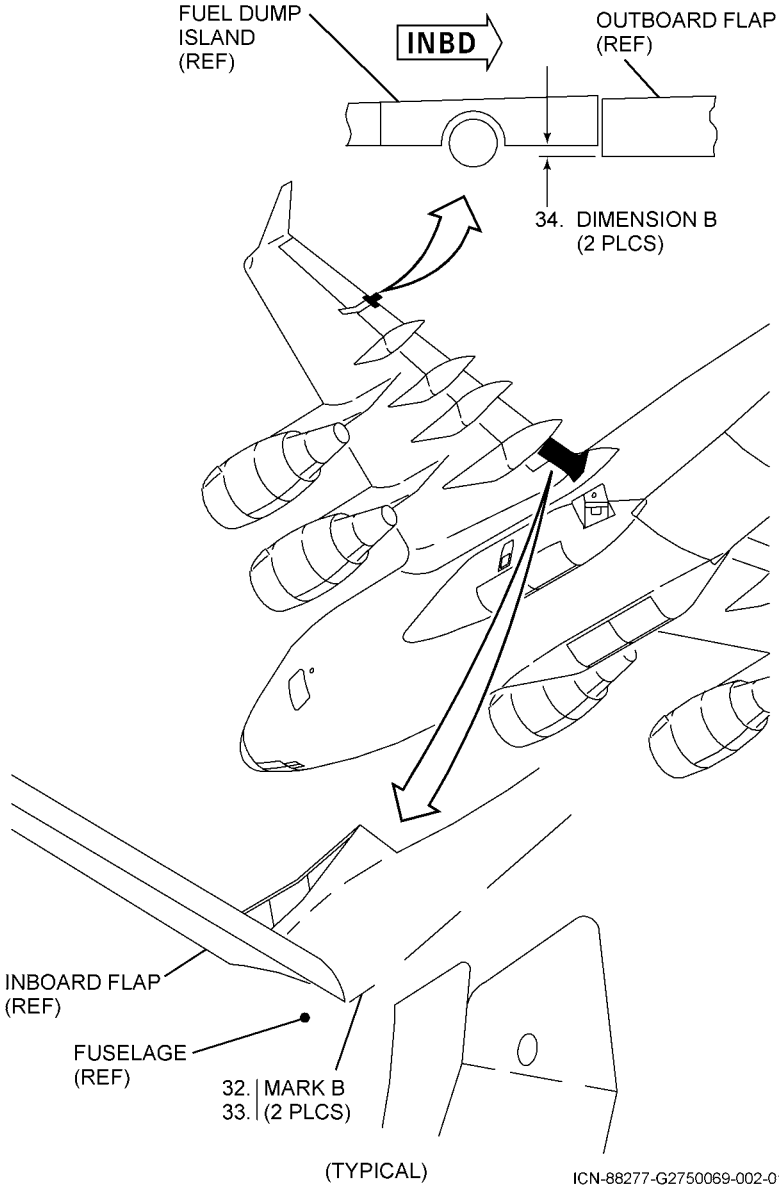
32. (A,B) Make chalk mark B on fuselage at inboard trailing edge of inboard flaps.

33. (A,B) Measure dimension between mark A and mark B on fuselage.

    - Dimension between mark A and mark B should not exceed 2.2 inches (27-52-AA-_).

34. (A,B) Measure and record dimension B between inboard trailing edge of fuel dump islands and outboard trailing edge of outboard flaps.

    - Measurement A and measurement B should not exceed 1.9 inches (27-52-AA-_).


FUEL DUMP
ISLAND
(REF)
INBD
OUTBOARD FLAP
(REF)
34. DIMENSION B
(2 PLCS)
INBOARD FLAP
(REF)
FUSELAGE
(REF)
32. MARK B
33. (2 PLCS)
(TYPICAL)
ICN-88277-G2750069-002-01

35. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

36. (A) Press **FLAP INDEX** switch on flap/slat module until flap index position indicator indicates **100**.

37. (A) Set flap/slat handle to **UP/RET**.

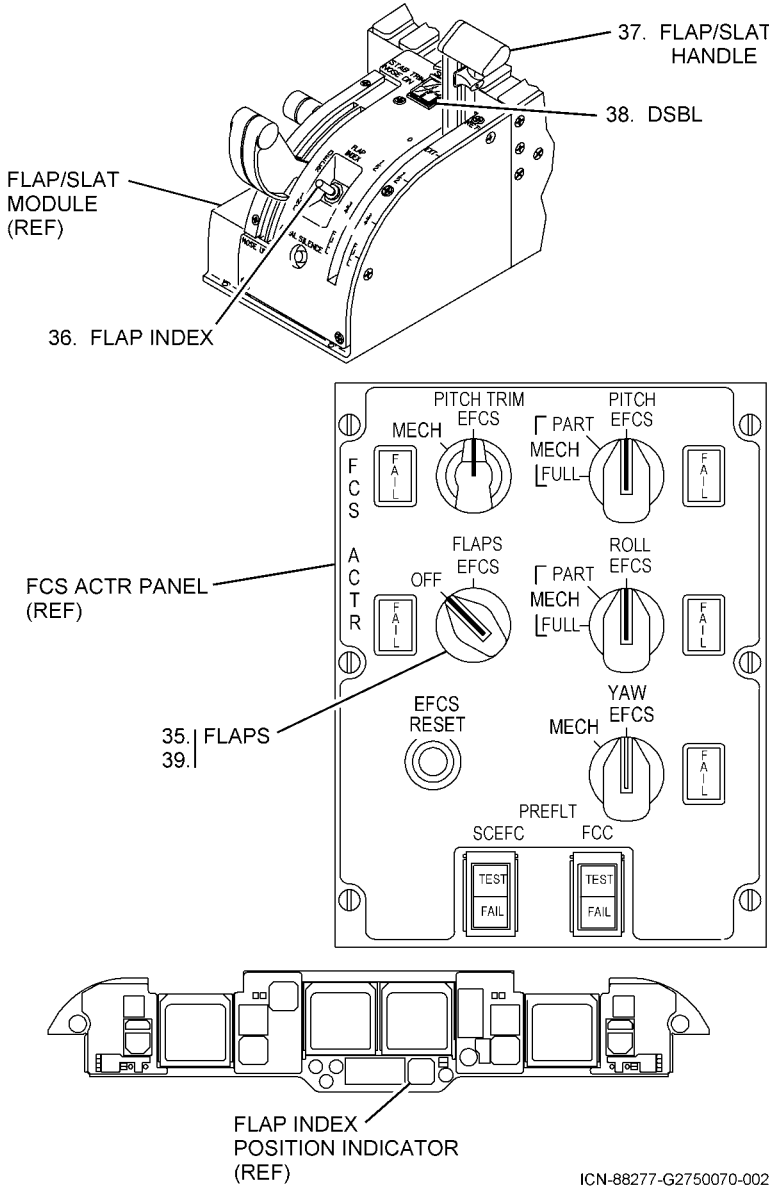
38. (A) Push **DSBL** switch.

    - **DSBL** light goes off (27-80-AA-00).

39. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF**.

40. Shutdown auxiliary hydraulic system (29-20-01, task 01-2).

41. Perform maintenance interphone shutdown (23-41-02, task 02-4).



ICN-88277-G2750070-002-01

FLAPS SYSTEM REPAIR
(27-50-02)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

	Task
All	All

Additional information:

This procedure consists of the following tasks:

02-1. Preparation.
02-2. Repair flaps system by replacing flap position transducer crank.
02-3. Repair flaps system by replacing flap position transducer connecting link.
02-4. Follow-on maintenance.

Additional data:

	Task
TO 1300i-2-27JG-50-4	02-4
TO 1300i-2-57JG-50-1	02-1, 02-4
TO 1300i-23	02-4

Personnel recommended:

	Task
One	All

Safety conditions:

	Task
WARNING	
Areas below lower wing fixed trailing edge door assembly shall remain clear of personnel when door is in lowered position and suspended from lanyards. Failure to comply may cause injury to personnel or damage to aircraft.	All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
Lock, Aircraft Ground Safety, Flap Control Handle	17G140025-1	--	1	02-1
Wrench, Torque	--	(0-50 in-lbs)	1	02-3

Supplies:

Nomenclature	PN	Specification	Qty	Task
Compound, Corrosion Preventive	BRAYCOTE 194	MIL-C-16173	AR	02-4
Pin, Cotter	MS24665-151	--	1	02-2
Pin, Cotter	MS24665-151	--	2	02-3
Tag, Warning	--	--	1	02-1

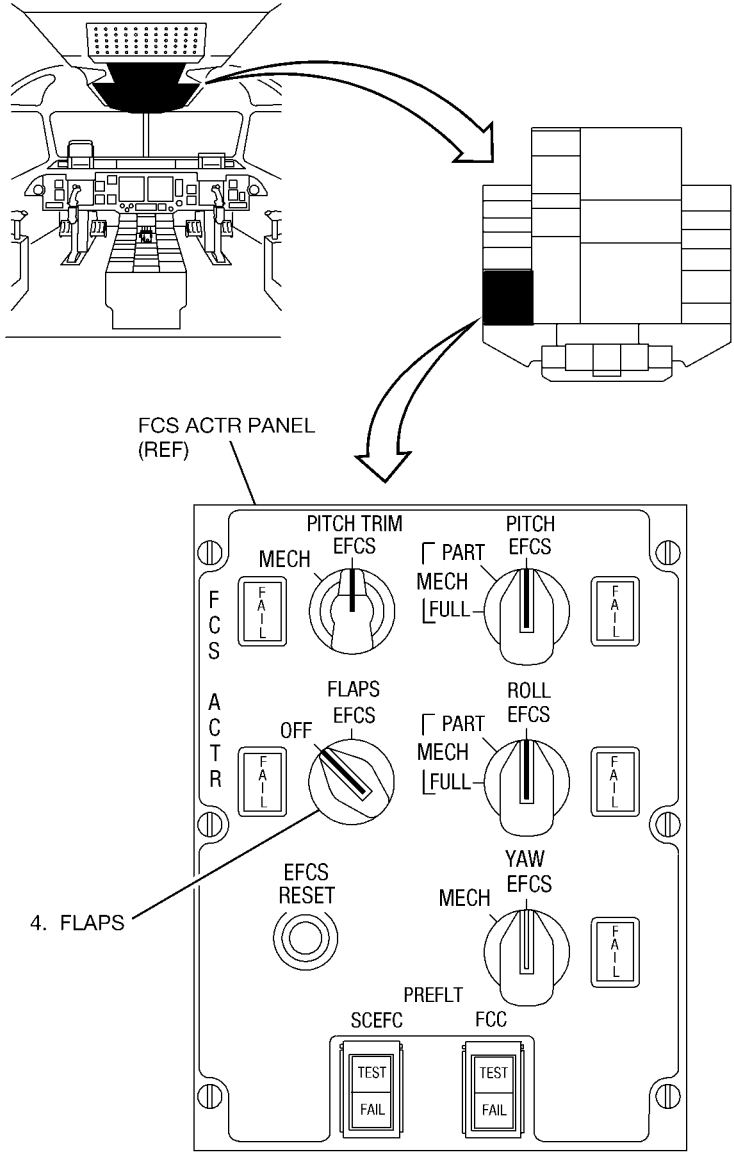
02-1. PREPARATION.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

3. Operate flaps system and position flap/slat handle to **UP/RET** (27-50-03, task 03-1).

4. Ensure **FLAPS** switch on **FCS ACTR** panel is **OFF** and attach warning tag.



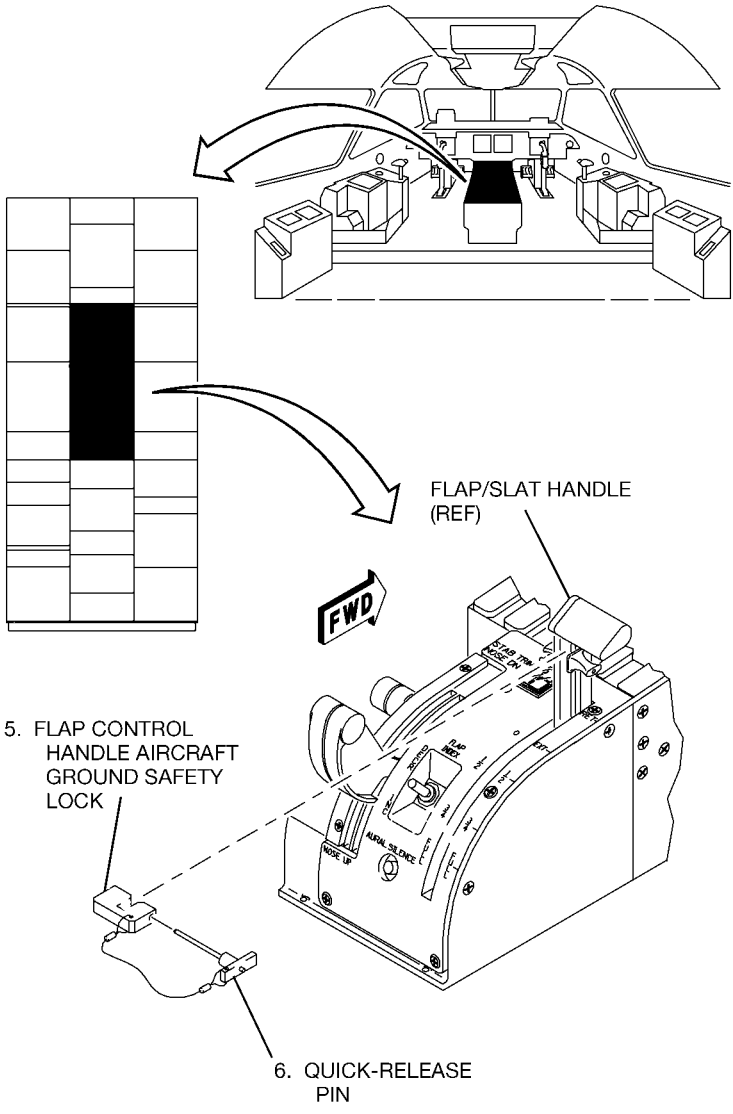
ICN-88277-G2750011-003-01

5. Position flap control handle aircraft ground safety lock on flap/slat handle.

6. Install quick-release pin.

7. Lower lower wing fixed trailing edge door assembly (57-54-01, task 01-1).

TRANSDUCER REF DES	DOOR NO.	DOOR REF DES
2753AS001	565DBD	5754CA031
2753AS002	565BBD	5754CA029
2753AS003	665BBD	5754CA036
2753AS004	665DBD	5754CA034



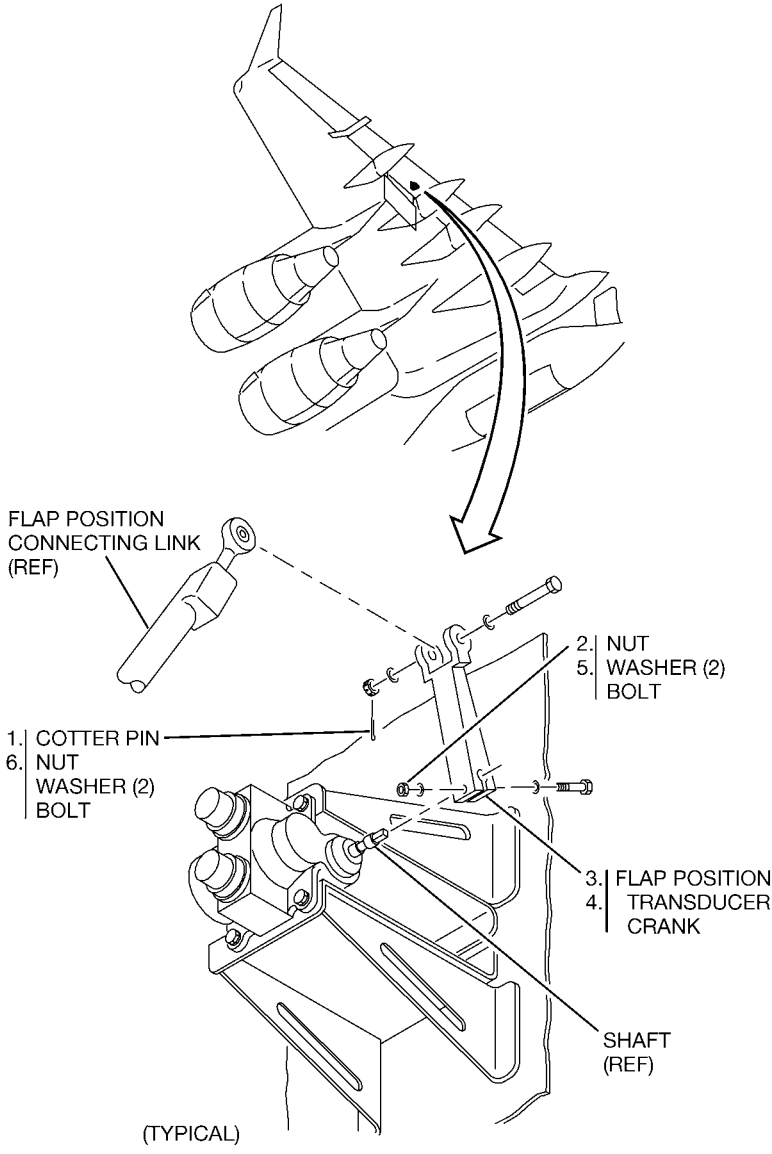
ICN-88277-G2750012-005-01

02-2. REPAIR FLAPS SYSTEM BY REPLACING FLAP POSITION TRANSDUCER CRANK.

NOTE

This is a typical repair task for replacing all flap position transducer cranks.

1. Remove cotter pin, nut, washers, and bolt from flap position connecting link.
2. Remove nut, washers, and bolt.
3. Remove flap position transducer crank from shaft.
4. Position crank.
5. Install bolt, washers, and nut.
6. Install bolt, washers, nut and cotter pin.



ICN-88277-G2750014-003-01

02-3. REPAIR FLAPS SYSTEM BY REPLACING FLAP POSITION TRANSDUCER CONNECTING LINK.

1. Remove cotter pins, nuts, washers, bolts, and flap position transducer connecting link.

2. Adjust connecting link from center of rod end bolt holes as follows:

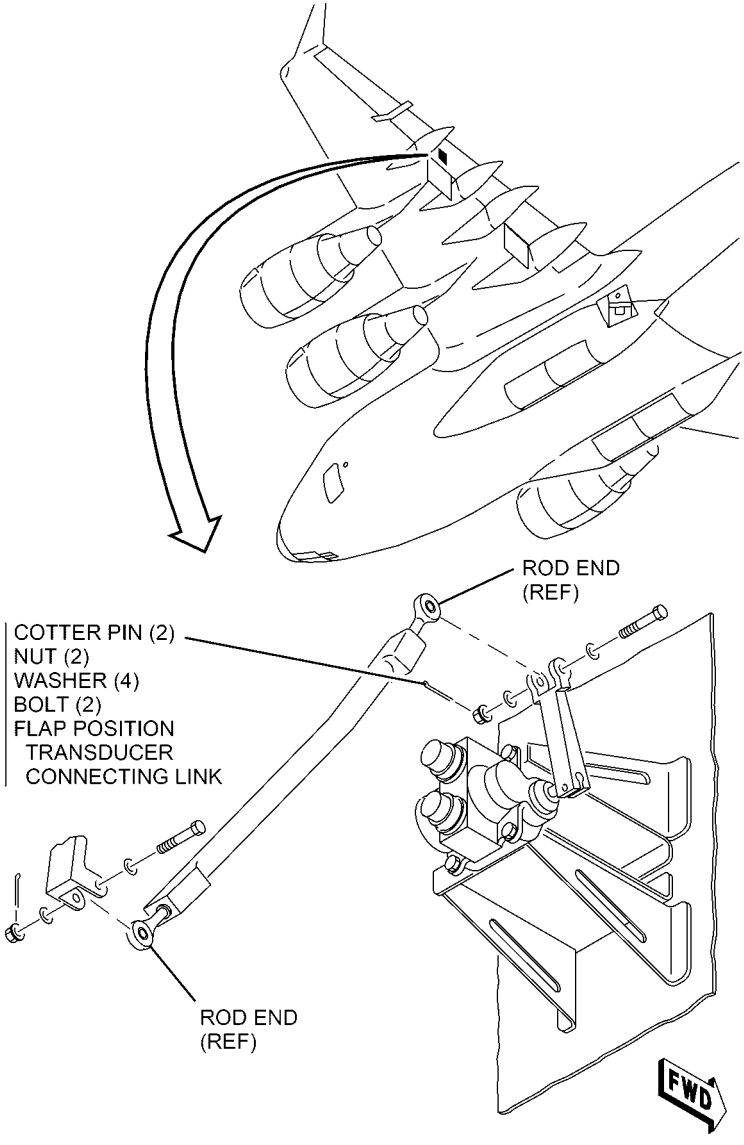
RIGHT/LEFT LINK	MEASUREMENT (INCH)
INBOARD	15.19
OUTBOARD	13.28

NOTE

Nut may be backed off to the nearest hole to install cotter pin.

3. Position connecting link and install bolts, washers, nuts, and cotter pins; torque as follows:

LINK	TORQUE (in-lb)
OUTBOARD TOP	30-42
OUTBOARD BOTTOM	30-42
INBOARD TOP	30-42
INBOARD BOTTOM	12-15



(TYPICAL)

ICN-88277-G2750072-001-01

02-4. FOLLOW-ON MAINTENANCE.

1. Perform flap position transducer adjustment (27-53-11).

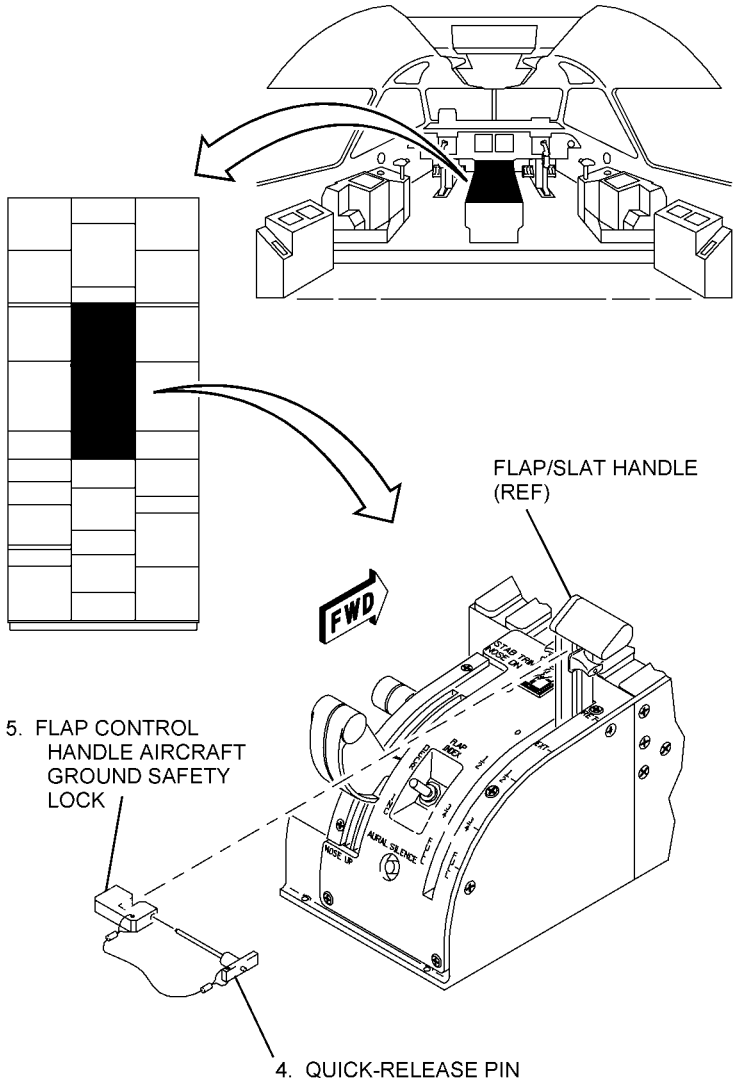
2. Apply corrosion preventive compound (TO 1300i-23, Chapter 1, Section II).

3. Raise lower wing fixed trailing edge door assembly (57-54-01, task 1-2).

TRANSDUCER REF DES	DOOR NO.	DOOR REF DES
2753AS001	565DBD	5754CA031
2753AS002	565BBD	5754CA029
2753AS003	665BBD	5754CA036
2753AS004	665DBD	5754CA034

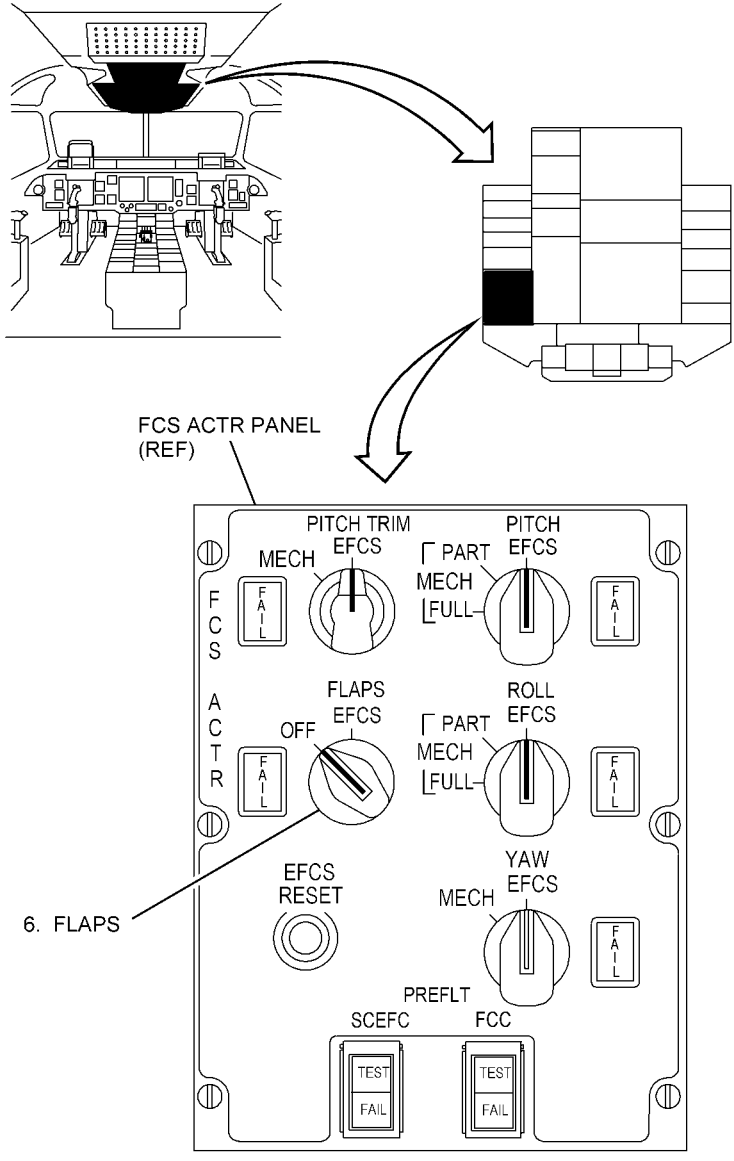
4. Remove quick-release pin from flap control handle aircraft ground safety lock.

5. Remove flap control handle aircraft ground safety lock from flap/slat handle.



ICN-88277-G2750017-006-01

6. Remove warning tag from **FLAPS** switch on **FCS ACTR** panel.



ICN-88277-G2750018-004-01

FLAPS SYSTEM OPERATION (27-50-03)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

	Task
All	All

Additional information:

This procedure consists of the following tasks:

03-1. Flap/slat operation.
03-2. Slats disabled/flap operation.
03-3. Flap splitting - extension.
03-4. Flap splitting - retraction.

Additional data:

	Task
TO 1300i-2-23JG-40-1	All
TO 1300i-2-27FI-00-1	03-2
TO 1300i-2-29JG-20-1	All
TO 1300i-2-34JG-60-1	03-3, 03-4

Personnel recommended:

	Task
Two	All

Person (A) performs task.

Person (B) assists person (A).

Safety conditions:

	Task
WARNING	
Areas below lower wing fixed trailing edge door assembly shall remain clear of personnel when door is in lowered position and suspended from lanyards. Failure to comply may cause injury to personnel or damage to aircraft.	All
CAUTION	
All four hydraulic systems shall be pressurized when operating the flaps. Flaps can be damaged during flap retraction without all four hydraulic systems operating. Failure to comply may cause damage to aircraft.	All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
NA	--	--	--	--

Supplies:

Nomenclature	PN	Specification	Qty	Task
Tag, Warning	--	--	8	03-3

03-1. FLAP/SLAT OPERATION.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

CAUTION

- When electrical or hydraulic power is lost during flap system operation, set **FLAPS** switch on **FCS ACTR** panel to **OFF** before reapplying electrical or hydraulic power. Failure to comply may cause damage to aircraft.

- When **SC/EFC 1, 2** is displayed on Warning and caution Annunciator Panel (WAP), ensure Spoiler Control/Electronic Flap Computer (SC/EFC) system passes Maintenance Built-In Test (MBIT) prior to operating flaps with auxiliary hydraulic pumps. Failure to comply may cause damage to aircraft.

NOTE

When operating flaps during SC/EFC rig or initialization, flaps can be operated with **SC/EFC 1, 2** displayed on WAP.

3. Perform maintenance interphone operation (23-41-02, task 02-3).

4. Operate auxiliary hydraulic system (29-20-01, task 01-1).

FLAP INDEX can reset to 0 after power cycle, the flaps may move when the **FLAPS** switch is set to **EFCS**. Failure to comply may cause damage to aircraft.

5. Deleted.

6. (A) Set **FLAP INDEX** switch on flap/slat module until flap index position indicator indicates **100**.

WARNING

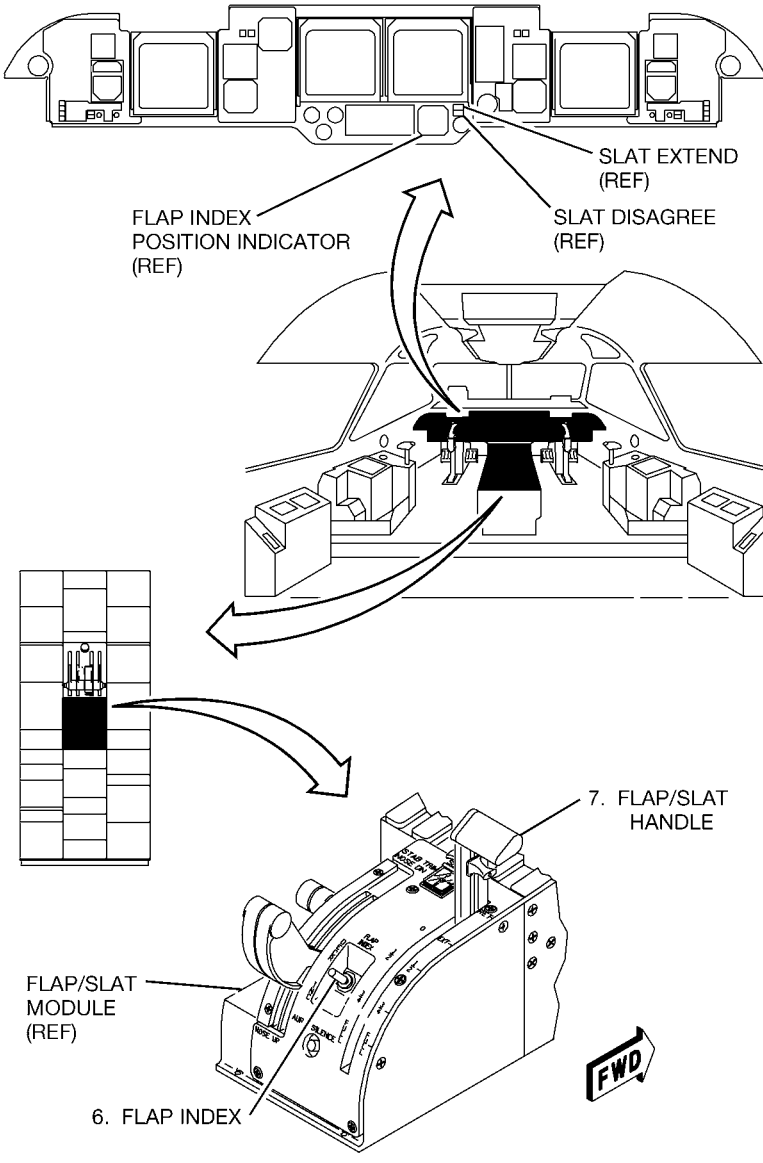
All flight control surfaces shall be clear of personnel and equipment prior to movement. Failure to comply may cause injury to personnel or damage to aircraft.

NOTE

Flap/slat positions are **UP/RET**, **0/EXT**, **1/2**, **3/4**, and **FULL**.

7. (A,B) Set flap/slat handle on flap/slat module to desired position.

- **SLAT DISAGREE** light momentarily comes on.
- **SLAT EXTEND** light comes on.
- Flap index position indicator agrees with flap position selected.

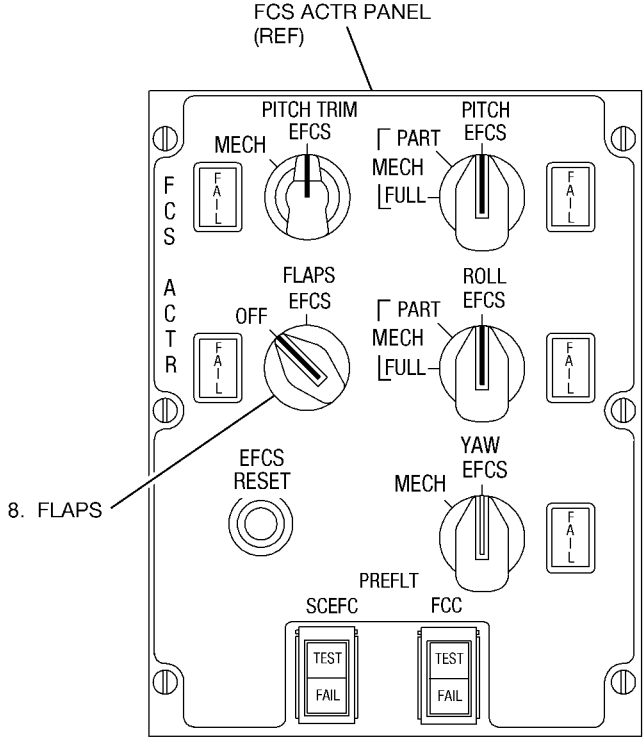


ICN-88277-G2750006-006-01

8. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF**.

9. Shutdown auxiliary hydraulic system (29-20-01, task 01-2).

10. Perform maintenance interphone shutdown (23-41-02, task 02-4).



ICN-88277-G2750037-004-01

03-2. SLATS DISABLED/FLAP OPERATION.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

CAUTION

- When electrical or hydraulic power is lost during flap system operation, set **FLAPS** switch on **FCS ACTR** panel to **OFF** before reapplying electrical or hydraulic power. Failure to comply may cause damage to aircraft.

- When **SC/EFC 1, 2** is displayed on Warning and caution Annunciator Panel (WAP), ensure Spoiler Control/Electronic Flap Computer (SC/EFC) system passes Maintenance Built-In Test (MBIT) prior to operating flaps with auxiliary hydraulic pumps. Failure to comply may cause damage to aircraft.

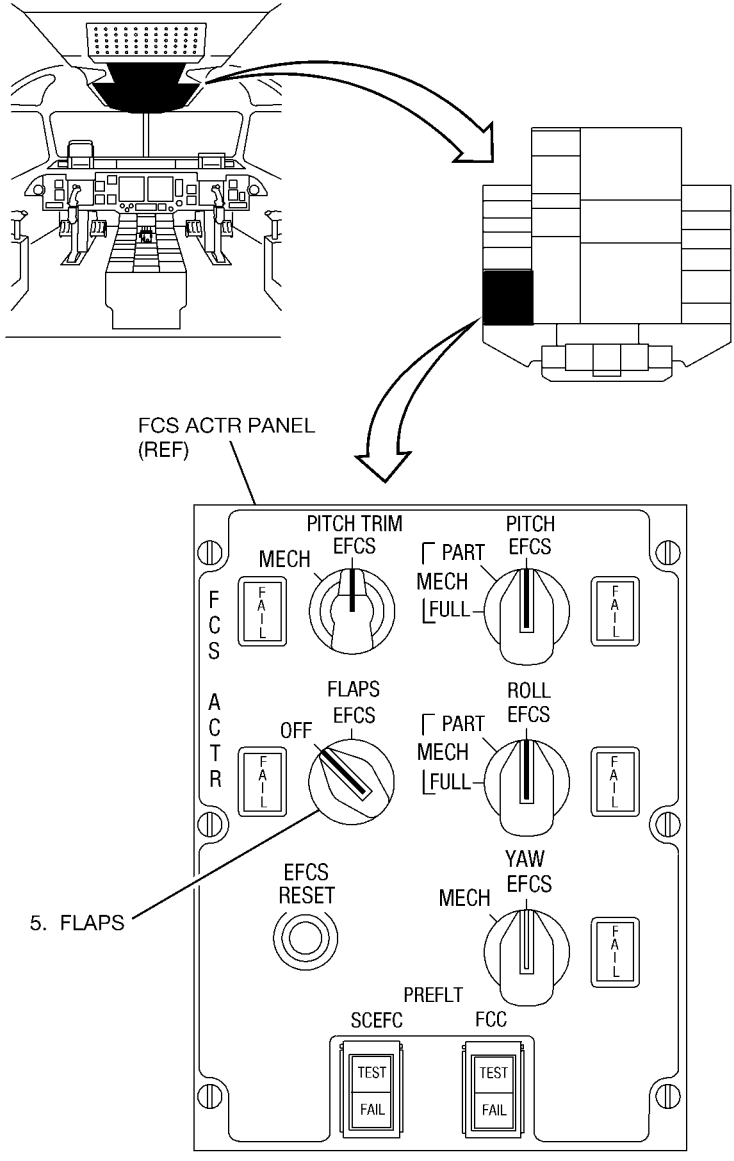
NOTE

When operating flaps during SC/EFC rig or initialization, flaps can be operated with **SC/EFC 1, 2** displayed on WAP.

3. Perform maintenance interphone operation (23-41-02, task 02-3).

4. Operate auxiliary hydraulic system (29-20-01, task 01-1).

5. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.



ICN-88277-G2750038-005-01

6. (A) Press **DSBL** switchlight on flap/slat module.

   - **DSBL** switchlight comes on (27-80-AA-00).

7. (A) Set **FLAP INDEX** switch until flap index position indicator indicates **100**.

WARNING

All flight control surfaces shall be clear of personnel and equipment prior to movement. Failure to comply may cause injury to personnel or damage to aircraft.

NOTE

Flap/slat positions are **UP/RET**, **0/EXT**, **1/2**, **3/4**, and **FULL**.

8. (A,B) Set flap/slat handle to desired position.

   - Flap index position indicator agrees with flap position selected.

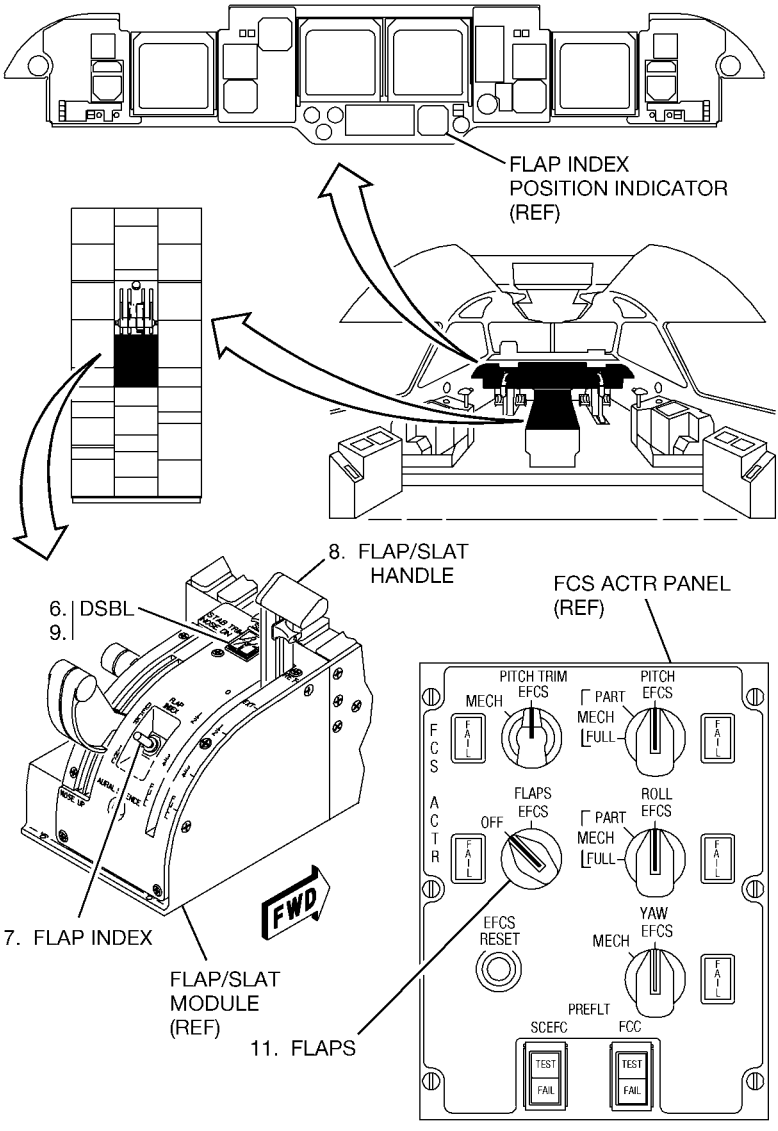
9. (A) Press **DSBL** switchlight.

   - **DSBL** switchlight goes off (27-80-AA-00).

10. Shutdown auxiliary hydraulic system (29-20-01, task 01-2).

11. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF**.

12. Perform maintenance interphone shutdown (23-41-02, task 02-4).



ICN-88277-G2750009-008-01

03-3. FLAP SPLITTING - EXTENSION.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

CAUTION

- When electrical or hydraulic power is lost during flap system operation, set **FLAPS** switch on **FCS ACTR** panel to **OFF** before reapplying electrical or hydraulic power. Failure to comply may cause damage to aircraft.

- When **SC/EFC 1, 2** is displayed on Warning and caution Annunciator Panel (WAP), ensure Spoiler Control/Electronic Flap Computer (SC/EFC) system passes Maintenance Built-In Test (MBIT) prior to operating flaps with auxiliary hydraulic pumps. Failure to comply may cause damage to aircraft.

NOTE

When operating flaps during SC/EFC rig or initialization, flaps can be operated with **SC/EFC 1, 2** displayed on WAP.

3. Operate mission computing system (34-62-02, tasks 02-1 and 02-2).

4. Perform maintenance interphone operation (23-41-02, task 02-3).

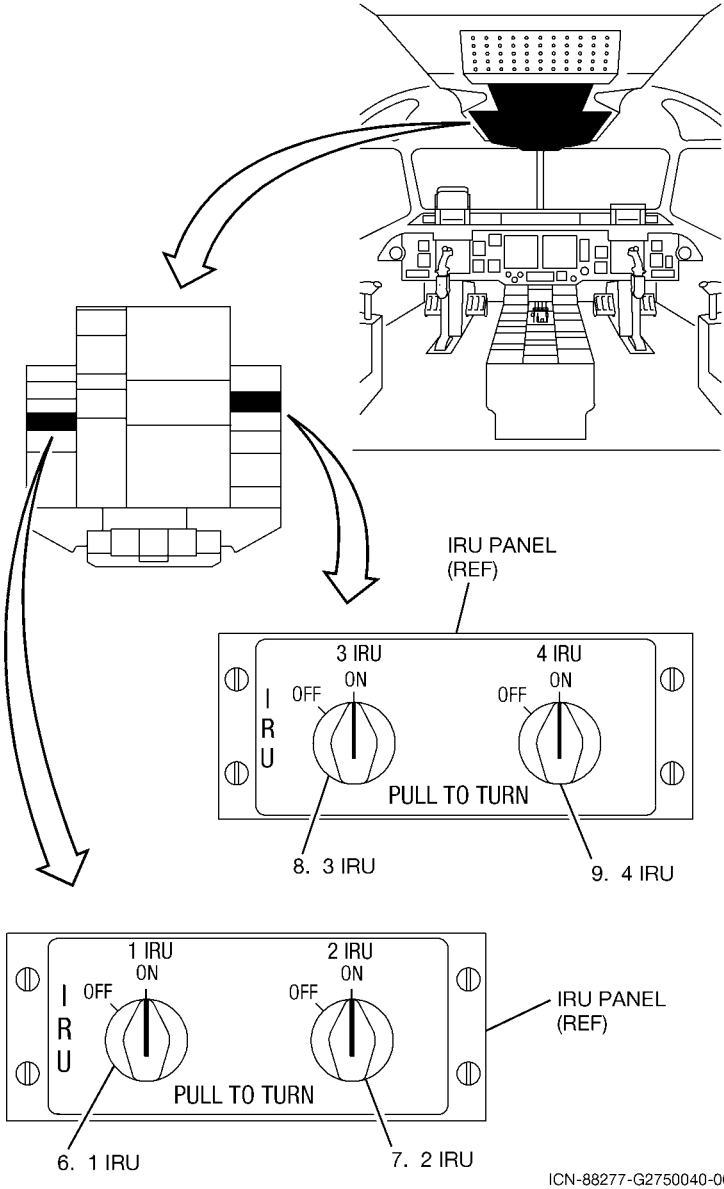
5. Operate auxiliary hydraulic system (29-20-01, task 01-1).

6. (A) Set **1 IRU** switch on **IRU** panel to **ON**.

7. (A) Set **2 IRU** switch to **ON**.

8. (A) Set **3 IRU** switch on **IRU** panel to **ON**.

9. (A) Set **4 IRU** switch to **ON**.

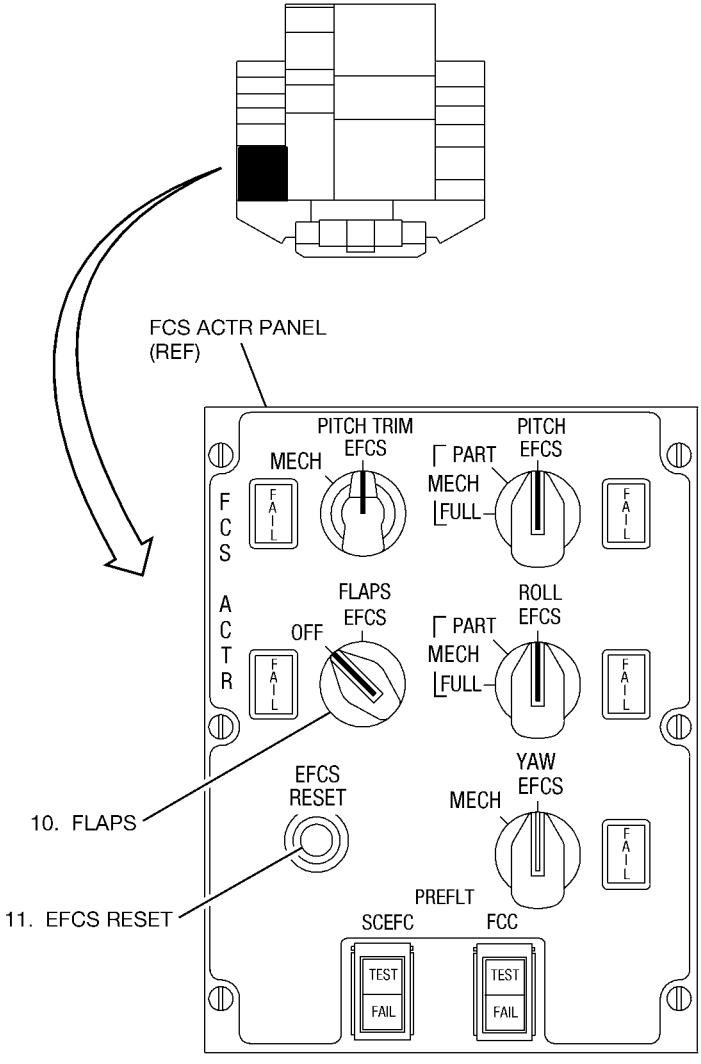


ICN-88277-G2750040-006-01

10. (A) Rotate **FLAPS** switch on **FCS ACTR** panel to **EFCS**.

11. (A) Press **EFCS RESET** button.

12. Operate flaps system and position flap/slat handle to **UP/RET** (task 03-1).



ICN-88277-G2750063-003-01

13. (A) Press up arrow key on **MCD (DU)**.

    - **MSN INDEX 2** is displayed.

14. (A) Press 6L Line Select (LS) key.

    - **MAINTENANCE MENU** is displayed.

15. (A) Press 3L LS key.

    - **SCEFC MAINT MENU** is displayed.

16. (A) Press 3L LS key.

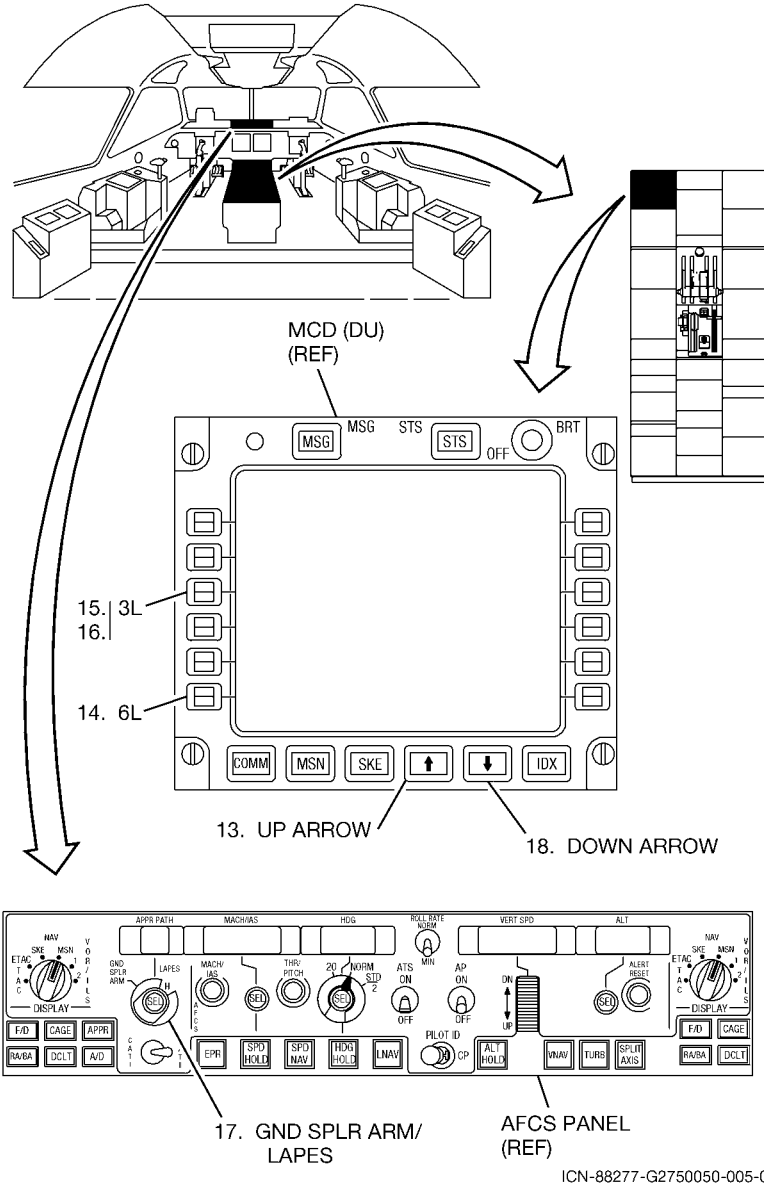
    - **SCEFC MAINTENANCE BIT** is displayed.

17. (A) Rotate **GND SPLR ARM/LAPES** switch on **AFCS** panel to **GND SPLR ARM**.

    - **SCEFC MAINTENANCE BIT ENTRY IN PROGRESS**.

18. (A) Press the down arrow key on **MCD (DU)**.

    - **SCEFC MAINTENANCE BIT** menu page 3/3 is displayed.



ICN-88277-G2750050-005-01

NOTE

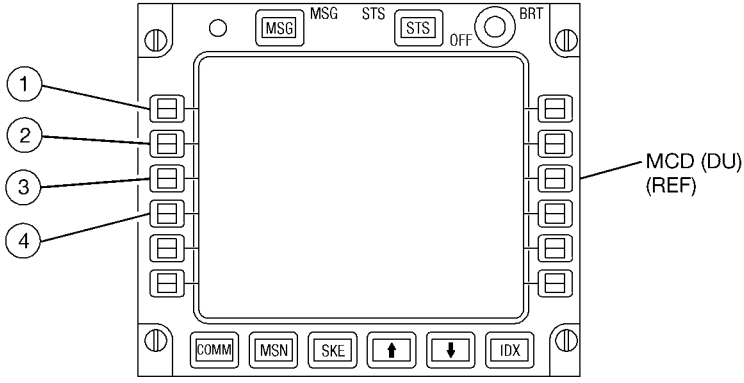
When the LS key is pressed the selected surface will start to move.

19. (A) Press LS key corresponding to flap surface to split.

20. (A,B) Rotate **FLAPS** switch on **FCS ACTR** panel to **OFF** when the selected surface reaches the desired position.

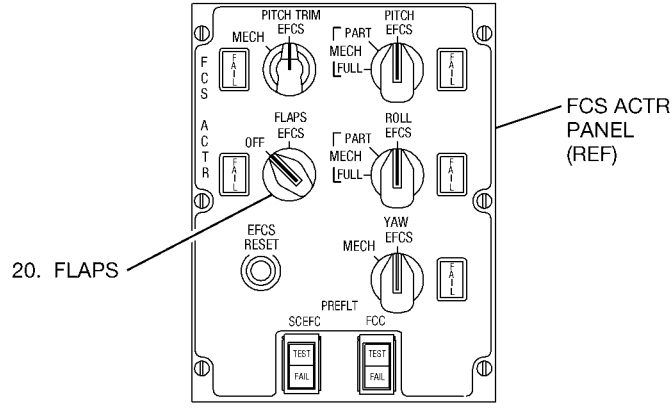
    - **MAINTENANCE MENU** is displayed on **MCD (DU)**.

21. Shutdown auxiliary hydraulic system (29-20-01, task 01-2).



19.

INDEX NO.	SURFACE	LS KEY
1	LEFT OUTBOARD FLAP	1L
2	LEFT INBOARD FLAP	2L
3	RIGHT INBOARD FLAP	3L
4	RIGHT OUTBOARD FLAP	4L



ICN-88277-G2750041-004-01

22. (A) Open **SCEFC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **28**, and attach warning tag.

23. (A) Open **SCEFC 2** circuit breaker on overhead circuit breaker panel, row **H**, column **29**, and attach warning tag.

24. (A) Open **SCEFC EMERG 1** circuit breaker on overhead circuit breaker panel, row **D**, column **3**, and attach warning tag.

25. (A) Open **SCEFC EMERG 2** circuit breaker on overhead circuit breaker panel, row **D**, column **4**, and attach warning tag.