



RUSSIAN FEDERATION
MINISTRY OF TRANSPORT OF RUSSIAN FEDERATION
FEDERAL AIR TRANSPORT AGENCY

AIRWORTHINESS DIRECTIVE

20 March, 2020

№ 2020-FATA-01020A-06

Applicability – RRJ-95 aircraft

State of Design – Russian Federation

Corrective actions described herein are mandatory. No operator may operate an aircraft to which this AD applies, except in accordance with the requirements hereof.

Due to the occurrences in operation of RRJ-95 aero aircraft plane (further aerop aircraft lane events) having the Main Landing Gear colliding with the Fuselage Landing Gear Doors during landing gear retraction, in order to ensure the Continued Airworthiness of this type of aircraft,

WE PROPOSE:

1. Perform “Landing Gear. Incorporation of Landing Gear Retraction-Extension and Nose Wheel Steering Electronic Control Unit (LGSCU) P/N 10-345203-006 with SW Version SJ100V108” tasks of SB RRJ-32-00354-БД in the fleet of aircraft RRJ-95 with manufacturing serial numbers from 95007 till 95031, from 95033 till 95074, from 95076 till 95232 with the loaded Avionics SW Version V530 and higher.

NOTE: Follow the requirements of the paragraph 1.04.57 of the RRJ-95 Aircraft Flight Manual “Standard Operational Procedures. Takeoff” in order to prevent cases of the Main Landing Gear colliding with the Fuselage Landing Gear Doors during landing gear retraction, and in order to prevent damage of Main Landing Gear and Fuselage Landing Gear Doors, make sure that after Aircraft liftoff and prior to Landing Gear retraction, the Fuselage Landing Gear Doors position indication on EWD is in Green Color.

2. The results of performing the reference 1 of this Airworthiness Directive (further Directive) to be sent to the address of Situations operative center of PJSC Corporation IRKUT: customer-care@scac.ru.

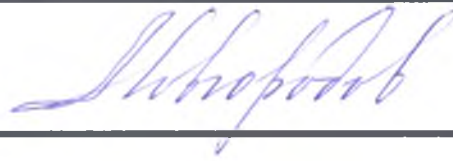
3. Act per the recommendations of the A/C designer in case of detection of deviations in performing the reference 1 of this Airworthiness Directive.

4. The date of this Airworthiness Directive implementation is 10.03.2022.

5. This Directive comes to force on 15.04.2020.

Attachment: Service Bulletin RRJ-32-00354-БД on 36 sheets in 1 copy.

**Deputy Director
Federal Air Transport Agency**



A. Novgorodov

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SERVICE BULLETIN

Number: RRJ-32-00354-БД
Aircraft: RRJ-95
Rev.: 0
Date: 20.02.2020

MANDATORY

SUBJECT: Landing gear — modification of the 10-345203-006 landing gear and steering control unit (LGSCU) with the SJ100V108 software version

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Appendix A – Bulletin of Safran Landing Systems SAS 250-32-047 Landing Gear - Nose
Landing Gear - Modification / Replacement of the Landing Gear Steering Control Unit
(LGSCU)

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Summary

Reason

This Service Bulletin is issued in accordance with the "Decision on SB issue No. P-0033-18".

The purpose of this Service Bulletin is to integrate the updated version of the landing gear and steering control unit (hereinafter referred to as LGSCU) software in order to exclude collisions between the main landing gear and the inboard doors during retraction of the landing gear.

Effectivity

This Service Bulletin is effective for the RRJ-95 type aircrafts (models: RRJ-95B, RRJ-95LR-100 and RRJ-95B-100) which type design modification is approved by the related aviation authority.

MSN
95007–95031, 95033–95074, 95076–95232

NOTE: This Service Bulletin must be implemented on the aircrafts with the V530 or more recent avionics version.

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List of works

This Service Bulletin includes procedures of the following works:

- modification of the 10-345203-005 LGSCU to the 10-345203-006 LGSCU by loading of the SJ100V108 S/W instead of the SJ100V107 S/W as specified in the Safran Landing System Bulletin.

Embodiment by

This Service Bulletin shall be performed on the aircrafts registered in the Russian Federation by:

- Regional Aircraft – branch of the Irkut Corporation JSC;
- by aircraft maintenance and repair organizations (AC MRO) certified under FAR for the relevant scope of activities.

The work of the LGSCU software replacement must be performed by the authorized representative of the Safran Landing System company.

Embodiment location

This Service Bulletin shall be performed at Operator's base or AC MRO facility.

Embodiment due date

This Service Bulletin must be implemented within 24 months from the date of approval.

Source of finance

Regional Aircraft – branch of the Irkut Corporation JSC: kits for works implementation

Condition of supply

During the period specified in the "Embodiment due date" para of this Service Bulletin.

The Operator must inform the Regional Aircraft - branch of the Irkut Corporation JSC about a necessity to correct the customized aircraft manuals not later than 120 working days before modification works start under this Service Bulletin.

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Life limit/limit of validity change

No changes.

Approval

Modification of type design implemented in this Service Bulletin is considered by Rosaviatsiya within main modifications certification (ОГН No. FATA 020223A-MC-11 dated 20.02.2020).

Standard configuration

Not applicable.

Appendices

Appendix A – Safran Landing System Bulletin 25-32-047.

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1. Planning Information

A. Safety measures

During implementation of works under this Service Bulletin obey labor safety regulations, safety and fire protection requirements of Operators and organizations who perform maintenance works.

B. Concurrent requirements

Make sure that after completion of this Service Bulletin the maintenance documentation specified in para I(1) is used.

C. Manpower

(1) Manpower

The approximate manpower to implement this Service Bulletin for one aircraft is:

(a) Preparation	0.5 MHR
(б) Removal/Installation of LGSCU	0.5 MHR
(в) Update of the LGSCU software	2.0 MHR
(г) Operational Test	8.0 MHR
(д) Close-Up	0.5 MHR
Total requirements	11.5 MHR

(2) Warranty terms

Claim for labor and reimbursement for consumable products and special tools are considered upon agreements with Operator.

D. Weight and balance

No changes.

E. Electrical load data

No changes.

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F. Check flight

Not applicable.

G. Software accomplishment summary

Implementation of this Service Bulletin results in the following changes of the the LGSCU software:

Software name:	Previous S/W version	New S/W version
LGSCU S/W	SJ100V107	SJ100V108

H. Reference

- (1) Aircraft maintenance manual RRJ-95 (AMM)
 M7.92.0AMM.000.000.RU M7.92.0AMM.CIS.000.EN (AMM),
 M7.92.0AMM.000. 000.EN (AMM):

Task	Title
00-00-00	Introduction/description and operation
24-00-00-920-801	Electrical Power System Maintenance and Safety Precautions
32-00-00-920-801	Landing Gear Maintenance and Safety Precautions
32-31-10-900-801	Removal/Installation of the Landing Gear and Steering Control Unit
32-51-00-820-801	Rigging of the Nose Wheel Steering System
32-31-00-720-801	Functional Test of the Landing Gear Control System
32-51-00-720-801	Functional Test of the NLG Wheel Steering System
32-34-00-720-801	Functional Test of the Emergency Extension System
32-31-00-740-801	Operational Test of the Landing Gear Extension and Retraction System With CMS

- (2) Wiring Diagram Manual RRJ-95 M7.92.WDM.000.000.RU,
 M7.92.WDM.000.000.EN (WDM):

Task	Title
20-00-09	Safety precautions

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Task	Title
20-50-20	Protection of the Electrical Connections During Maintenance, Repair and Modification of the Aircraft

I. Publications affected

(1) For aircrafts registered in the RF:

- (a) Aircraft illustrated parts catalog RRJ-95 M7.92.AIPC.000.000.RU, Issue. 04, Rev. 04 with TR 32-028 AIPC_RU.
- (b) Flight crew operational manual of the RRJ-95 aircraft with the revision on: «Implementation of the 10-345203-006 LGSCU with the SJ100V108 software version».

(2) For the aircrafts under the type design approved by EASA:

- (a) AIPC of the RRJ-95 aircraft M7.92.AIPC.000.000.EN, Issue 04, Rev. 05, with TR 00-010 AIPC_EN.
- (b) FCOM of the RRJ-95 aircraft with the Revision on: «Implementation of the 10-345203-006 LGSCU with the SJ100V108 software version».

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2. Material Information

A. List of kits

Not applicable.

B. List of consumables—Operator supplied

Not applicable.

C. Tools

Description	Designation	Quantity
Personal computer (OS minimum requirements Windows 7, i3 Pentium, 1G ram)	No specific	1 pc.
Interface Harness	59270-01	1 pc.
Adapter Harness	59248-03	1 pc.
Power Supply: 2A current, 28 VDC	No specific	1 pc.
1 USB to 4 RS422 port converter	UTS-M14	1 pc.
Vacuum Cleaner	No specific	1 pc.

NOTE: 1. Also use tools and devices specified in the relative sections/tasks of the maintenance manuals listed in the para 1.3.
 2. Alternative tools are permitted on conditions that they conform with the technical requirements specified in the SB.

D. Special tools

Not applicable

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3. Accomplishment Instruction

A. Preparation

WARNING: PROVIDE THE PERSONNEL WITH GROUND SUPPORT EQUIPMENT FOR THE TIME OF MAINTENANCE WORKS TO ENSURE ACCESS TO AREAS OF MODIFICATION AS PER HEALTH AND SAFETY REGULATIONS IN WORKPLACE IN FORCE.

WARNING: PREVENT UNAUTHORIZED ACCESS TO WORK AREAS FOR THE TIME OF MAINTENANCE UNDER THIS SERVICE BULLETIN.

(1) Safety measures

- (a) Obey the electrical power system maintenance and safety precautions (see *AMM, task 24-00-00-920-801*).
- (b) Obey the landing gear maintenance and safety precautions (see *AMM, task 32-00-00-920-801*).
- (c) Obey the electrical wiring interconnection system maintenance and safety precautions (see *WDM, task 20-00-09*).
- (d) Protect the electrical wiring during maintenance, repair and modification of the aircraft (see *WDM, section 20-50-20*).

B. Procedure

(1) Aircraft Maintenance Configuration

- (a) Make sure that the aircraft is set for maintenance (see *AMM, section 00-00-00, para 7*).
- (b) Remove LGSCU (see *AMM, task 32-31-10-900-801*).
- (c) Update the LGSCU software (see *Appendix A*):

NOTE: 1. Must be performed by an authorized representative of the Safran Landing System company.
2. Change of the unit and software titles on the strike plates are performed by the Safran Landing Systems representative.

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3. It is permitted to replace the 10-345203-005 LGSCU with the 10-345203-006 LGSCU with the SJ100V108 software version installed.

- (d) Check the technical documentation of the 10-345203-006 LGSCU with the installed SJ100V108 software, make sure that the strike plates are in position and the quality certifying are available: EASA FORM1 or airworthiness sheet (E-02 form).
- (e) Install LGSCU (*see AMM, task 32-31-10-900-801*).

C. Operational Test

(1) Operational Test

- (a) Adjust the nose wheel steering system (*see AMM, task 32-51-00-820-801*).
- (b) Do the functional test of the landing gear control system (*see AMM, task 32-31-00-720-801*).
- (c) Do the functional test of emergency extension system (*see AMM, task 32-34-00-720-801*).
- (d) Do the operational test of the nose wheel steering system (*see AMM, task 32-51-00-710-801*).
- (e) Do the operational test of the landing gear extension and retraction system with CMS (*see AMM, task 32-31-00-740-801*).

D. Close-Up

- (1) Clean the work areas with a vacuum cleaner and make sure that there are no unwanted objects in the area.
- (2) Remove the tools.

E. Documentation

- (1) After implementation of works under this Service Bulletin make the following record in the relative section of the aircraft Logbook: "Works of installation of the Landing Gear and Steering Control Unit with the SJ100V108 software version under the Service Bulletin RRJ-32-00354-БД Revision 0 are completed".

Insert relative changes in the section 4.1. "Spare parts and changes in kits".

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- (2) For the aircraft registered in the Russian Federation send the design documentation and the aircraft data sheet (if available) to the Design company (Regional Aircraft branch of the Irkut Corporation JSC) to include revisions or to issue a new data sheet. In case you make changes to data sheet, make sure that the information is full and correct.

- (3) Fill in the Report form enclosed to the present Service Bulletin and sent it to the specified address.

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Appendix A – Bulletin of Safran Landing Systems SAS 250-32-047 Landing Gear - Nose Landing Gear - Modification / Replacement of Landing Gear Steering Control Unit (LGSCU)



SAFRAN LANDING SYSTEMS SAS
CAGE: F0189
Inovel Parc Sud - 78140 VELIZY-VILLACOUBLAY - FRANCE
Telephone: +33 (0) 1 46 29 81 00
www.safran-landing-systems.com

SERVICE BULLETIN

LANDING GEAR - NOSE LANDING GEAR - MODIFICATION / REPLACEMENT OF LANDING GEAR STEERING CONTROL UNIT (LGSCU)

1. Planning Information

A. Effectivity

- (1) Aircraft affected:
Sukhoi Superjet 100
- (2) In-service units affected:
Landing Gear Steering Control Unit (LGSCU) P/N 10-345203-XXX not incorporating -006

B. Reason

- (1) Improvement of the LGSCU by implementation of Software version V108.

C. Classification

- (1) Recommended.

D. Description

- (1) The accomplishment of this Service Bulletin consists of the modification of the LGSCU Software.
 - LGSCU V108 introduces new features in the Application Software.
- (2) Modification of:
 - LGSCU P/N 10-345203-XXX not incorporating -006, to LGSCU P/N 10-345203-006.

E. Approval

- (1) Approved by Ministry of transport of the Russian Federation, Federal Air Transport Agency, under Major change approval No. FATA-020223A-MC-11.
- (2) Pending EASA approval.

F. Manpower

- (1) Refer to Safran Electronics & Defense Canada Inc. Service Bulletin 59000-31-5.

G. Tools - Cost and Availability

- (1) Refer to Safran Electronics & Defense Canada Inc. Service Bulletin 59000-31-5, Para 2.E.

H. Weight and Balance

- (1) Not changed.

The technical data in this document (or file) may contain US data and be controlled for export under the Export Administration Regulations (EAR), 15 CFR Parts 730-774, ECCN: 9E991. Violations of these laws may be subject to fines and penalties under the Export Administration Act.

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SAFRAN LANDING SYSTEMS SAS
CAGE: F0189

SERVICE BULLETIN

I. References

- (1) Safran Electronics & Defense Canada Inc. Service Bulletin 59000-31-5.
- (2) System Monitor User Manual: 53860 Rev C.
- (3) Software Modification Sheet Control Path for Flight Software V108: 59537 Ref AF.
- (4) Software Modification Sheet Control Path for Flight Software V108: 59538 Ref AE.

J. Other Publications Affected

- (1) Aircraft Illustrated Parts Catalogue.

2. Accomplishment Instructions

- A. Refer to Safran Electronics & Defense Canada Inc. Service Bulletin 59000-31-5, Para 3.

3. Material Information

A. General

- (1) Price and Availability
 - (a) Refer to Safran Electronics & Defense Canada Inc. Service Bulletin 59000-31-5.

B. List of Materials

- (1) The table below lists the part number changes and appropriate quantities for unit assemblies.

NOTE: It is understood that the table below, except columns ID and P/N CC, is only intended for the updating of the Illustrated Parts Lists (IPLs).

- (2) The Instruction/Disposition (ID) code used is as follows:

- 1 New part
- 2 Part that can be obtained from the old one
- 3 Expendable part
- 4 Old part to be discarded
- 5 Part of new design valid for new manufacture.

New P/N	Quantity		Nomenclature	Old P/N	ID	P/N CC
	Assy	A/C				
10-345203-006		1	LGSCU	10-345203-005	2	01

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Safran Electronics & Defense Canada Inc.

SERVICE BULLETIN

SafranED SB No 59000-31-5

LANDING GEAR & STEERING CONTROL UNIT – MODIFICATION/REPLACEMENT OF

1. Planning Information

A. Effectivity

Safran Electronics & Defense Canada Inc. P/N 59000-01, Strike Plate 2, Strike Plate 2, (SLS P/N 10-345203-002), P/N 59000-01, Strike Plate 5, Strike Plate 5, (SLS P/N 10-345203-003) and P/N 59000-01, Strike Plate 7, Strike Plate 7, (SLS P/N 10-345203-005) Landing Gear and Steering Control Unit (LGSCU).

NOTE: This component is installed on the SUKHOI, Super Jet 100 Aircraft as part of the Landing Gear and Nosewheel Steering system.

B. Concurrent Requirements

SafranED SB No 59000-31-1 is required to update P/N 59000-01, Strike Plate 1, Strike Plate 1, (SLS P/N 10-345203-001) to P/N 59000-01, Strike Plate 2, Strike Plate 2, (SLS P/N 10-345203-002) prior to performing this service bulletin.

C. Reason

(1) Problem

The configuration of the final assembly of the LGSCU has been changed.

(2) Cause

Post-certification improvements have been implemented to introduce new features in the Application Software.

(3) Solution

a) New LGSCU P/N 59000-01, Strike Plate 8, Strike Plate 8 (SLS P/N 10-345203-006)

b) Upgrade P/N 59000-01, Strike Plate 2, Strike Plate 2, (SLS P/N 10-345203-002), P/N 59000-01, Strike Plate 5, Strike Plate 5, (SLS P/N 10-345203-003) and P/N 59000-01, Strike Plate 7, Strike Plate 7, (SLS P/N 10-345203-005) using Safran Electronics & Defense Canada SB 59000-31-5.

D. Description

Introduction of LGSCU P/N 59000-01, Strike Plate 8, Strike Plate 8 (SLS P/N 10-345203-006) as a replacement for P/N 59000-01, Strike Plate 7, Strike Plate 7 (SLS P/N 10-345203-005), and P/N 59000-01, Strike Plate 5, Strike Plate 5, (SLS P/N 10-345203-003) and P/N 59000-01, Strike Plate 2, Strike Plate 2, (SLS P/N 10-345203-002), and instructions for modification to new LGSCU P/N 59000-01, Strike Plate 8, Strike Plate 8 (SLS P/N 10-345203-006).

E. Compliance

Category 8 - Recommended this Service Bulletin is implemented at the discretion of the Operator.

F. Approval

Approved by Ministry of transport of the Russian Federation, Federal Air Transport Agency, under Major change approval N° FATA-020223A-MC-11.

Pending EASA Approval.

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SafranED SB No 59000-31-5

LANDING GEAR & STEERING CONTROL UNIT – MODIFICATION/REPLACEMENT OF

- G. Labour
Not Applicable.
- H. Weight and Balance
None
- I. Electrical Load Data
Not changed.
- J. Software Accomplishment Summary
Document No wzs00_sas Version 7.0 (SJ100 V108 SW) is applicable for LGSCU P/N 59000-01, Strike Plate 8, Strike Plate 8 (SLS P/N 10-345203-006).
- K. References
Safran Landing Systems SB No. 250-32-047
Safran Electronics & Defense Canada Inc
53860 Rev C System Monitor User Manual
59537 Rev AF Software Modification Sheet Control Path for Flight Software V108
59538 Rev AE Software Modification Sheet Monitor Path for Flight Software V108
- L. Publications Affected
Aircraft Illustrated Parts Catalogue.
- M. Interchangeability and Intermixability of Parts
Interchangeability – Refer to Paragraph 2.C.
Intermixability – Not Applicable.

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Safran Electronics & Defense Canada Inc.

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SafranED SB No 59000-31-5

LANDING GEAR & STEERING CONTROL UNIT – MODIFICATION/REPLACEMENT OF

2. Material Information

- A. Material – Cost and Availability
See Paragraph 2.C.
- B. Industry Support Information
Not Applicable.
- C. Material Necessary to Accomplish this Service Bulletin

<u>New P/N</u>	<u>Keyword</u> Landing Gear and Steering Control Unit Supplier Code (L8794)	<u>Qty</u>	<u>Est. Unit List Price (\$US)</u>	<u>Instructions Disposition</u>
59000-01, Strike Plate 8, Strike Plate 8 SLS P/N 10-345203-006		1	(1)	(2)(3) (4)

Old P/N

59000-01, Strike Plate 2, Strike Plate 2
SLS P/N 10-345203-002

59000-01, Strike Plate 5, Strike Plate 5
(SLS P/N 10-345203-003)

59000-01, Strike Plate 7, Strike Plate 7
SLS P/N 10-345203-005

- (1) List prices are subject to change without notice. For Unit List Price information, please contact:

Safran Landing Systems SAS
Site Jean-Paul Bechat
Inovel Parc Sud
7, rue Général Valérie André
78140 Vélizy-Villacoublay
France
Phone: +33 (0)1 55 21 25 90
Email: eamecsc.sls@safrangroup.com

- (2) This Service Bulletin permits to use either LGSCU part for the SUKHOI, Super Jet 100 Aircraft.

- (3) Old P/N, 59000-01, Strike Plate 2, Strike Plate 2, (SLS P/N 10-345203-002), P/N 59000-01, Strike Plate 5, Strike Plate 5, (SLS P/N 10-345203-003), and P/N 59000-01, Strike Plate 7, Strike Plate 7, (SLS P/N 10-345203-005) may be upgraded by loading SW Version SJ100 V 1.08 and re-identification as new LGSCU P/N. See Accomplishment Instruction 3.B.

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Safran Electronics & Defense Canada Inc.

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SafranED SB No 59000-31-5

LANDING GEAR & STEERING CONTROL UNIT – MODIFICATION/REPLACEMENT OF

(4) New label PN: 59046-09 required per Accomplishment Instruction 3.C, Option 2.

D. Re-Identified Parts

P/N 59000-01, Strike Plate 2, Strike Plate 2, (SLS P/N 10-345203-002), P/N 59000-01, Strike Plate 5, Strike Plate 5, (SLS P/N 10-345203-003) and P/N 59000-01, Strike Plate 7, Strike Plate 7 (SLS P/N 10-345203-005) may be reworked per Accomplishment Instruction 3.C Option 1 or 2.

E. Tooling – Price and Availability

P/N: 59248-03 Aircraft Maintenance Interface Harness

P/N: 59270-01 SJ100 on Bench Programming Adapter Harness.

P/N: UTS-M14 (1 USB to 4 RS422 port) converter or equivalent

28Vdc Power supply capable of supplying 2A current (standard equipment)

Computer, (Minimum requirements Windows 7, i3 Pentium, 1G ram) or equivalent

SJ100 Flight Software Uploading Procedure Install CD P/N: 59511

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Safran Electronics & Defense Canada Inc.

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SafranED SB No 59000-31-5

LANDING GEAR & STEERING CONTROL UNIT – MODIFICATION/REPLACEMENT OF

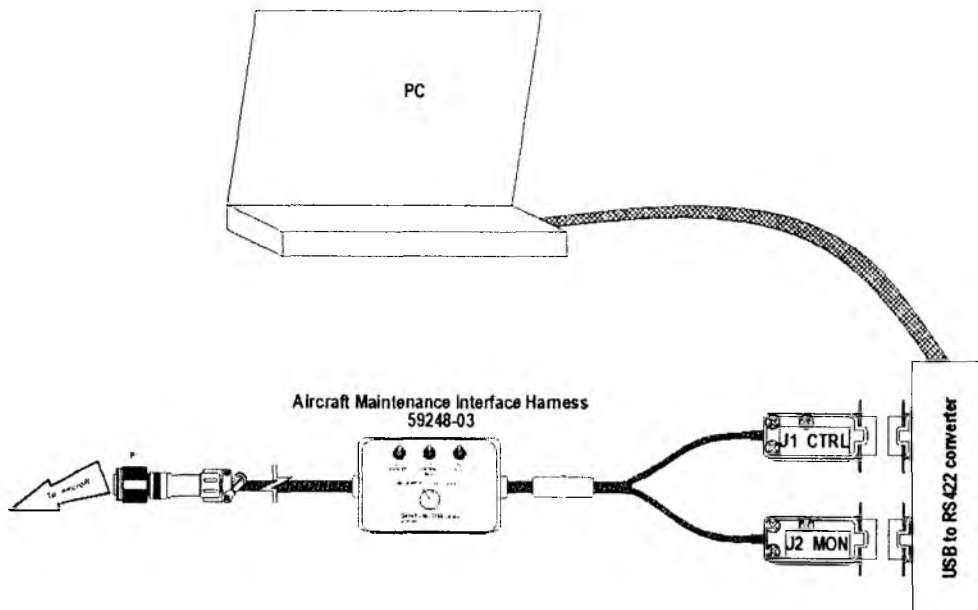
3. Accomplishment Instructions

- A. Install LGSCU P/N 59000-01, Strike Plate 8, Strike Plate 8 (SLS P/N 10-345203-006) on the SUKHOI, Super Jet 100 as a direct replacement for LGSCU P/N 59000-01, Strike Plate 5, Strike Plate 5 (SLS P/N 10-345203-003), P/N 59000-01, Strike Plate 7, Strike Plate 7 (SLS P/N 10-345203-005) and P/N 59000-01, Strike Plate 2, Strike Plate 2 (SLS P/N 10-345203-002).
- B. Instruction for Modification of P/N 59000-01, Strike Plate 5, Strike Plate 5 (SLS P/N 10-345203-003), P/N 59000-01, Strike Plate 7, Strike Plate 7 (SLS P/N 10-345203-005) and P/N 59000-01, Strike Plate 2, Strike Plate 2 (SLS P/N 10-345203-002) to P/N 59000-01, Strike Plate 8, Strike Plate 8 (SLS P/N 10-345203-006).

CAUTION: CHECK THERE IS NO POWER SUPPLY BEFORE CONNECTING OR DISCONNECTING LGSCU TO HARNESS

- (1) In the factory, upload flight software as per document 53860
- (2) **On the aircraft**, use harness 59248-03.
- a) Connect Harness 59248-03 to the aircraft as shown in Figure 3-1.

Figure 3-1



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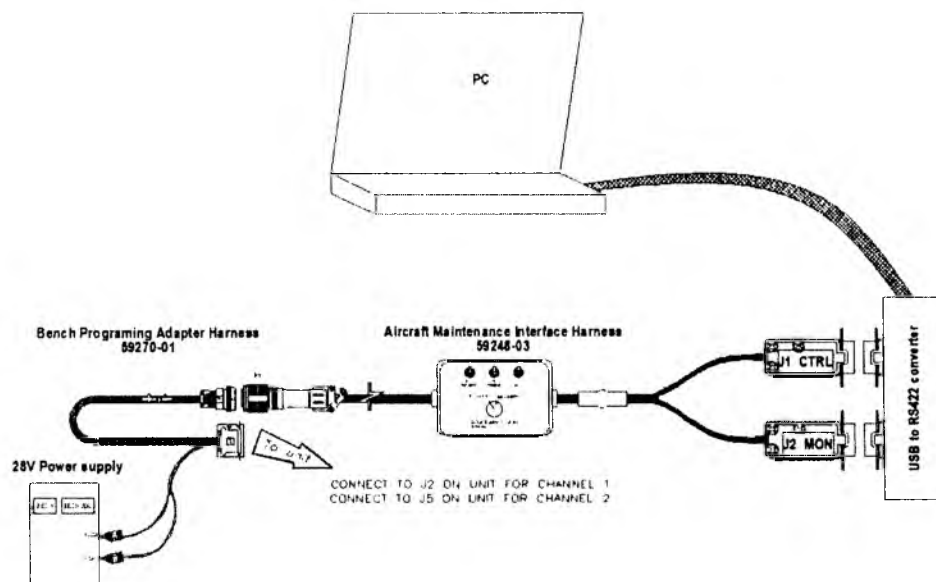
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- (3) **Off the aircraft**, to program the units in the field on a bench, use the on aircraft maintenance interface harness 59248-03 and the bench programming adapter harness 59270-01.
- a) Connect Harness 59248-03 and harness 59270-01 to the unit as shown in figure 3-2. Set the power supply to 28Vdc with a current limit of 2A.

Figure 3-2



Load the flight software using document 53860.

- (4) Copy ALL files from supplied CD PN: 59511 to a working folder on the Ground Service Equipment (GSE) Computer as per the following steps:
- FIND or CREATE the folder "C:\SJ100_released"
 - Create the folder "C:\SJ100_released\SJ100V108"
 - In "C:\SJ100_released\SJ100V108" create two folders "Control_Path" and "Monitor_Path"
 - Locate the "Control_Path" and "Monitor_Path" folders on the supplied CD, P/N 59511, in the following directory, \SJ100V108 and copy the files in the respective "Control_Path" and "Monitor_Path" folders that were created in Step (c).

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- e) Locate the following files in the "Control_Path" folder on the supplied CD, P/N 59511 and copy them to the following directory, C:\SystemMonitor\cfg:
 - i. SJ100_GUI_CFG_control_France_AS.cfg
 - ii. SJ100_ref_vars_control_France_AS.cfg
 - iii. SJ100_rigging_control_France_AS.cfg
 - iv. SJ100_tunables_control_France_AS.cfg.
 - f) Locate the following files in the "Monitor_Path" folder on the supplied CD, P/N 59511 and copy them to the following directory, C:\SystemMonitor\cfg:
 - i. SJ100_GUI_CFG_monitor_France_AS.cfg
 - ii. SJ100_ref_vars_monitor_France_AS.cfg
 - iii. SJ100_rigging_monitor_France_AS.cfg
 - iv. SJ100_tunables_monitor_France_AS.cfg.
- (5) Print 2 copies of each Software Modification Sheet (SMS) Doc # 59537 Rev AF and 59538 Rev AE, 1 copy for each channel, (located in the Documents folder of the supplied CD P/N: 59511).
- (6) Record the LGSCU Serial Number and associated channel on each SMS Sheet.

Perform the Flight software upload onto the Control lane and Monitor lane of the LGSCU for channel 1 of the LGSCU

- (7) Check that the Harness is connected to the LGSCU channel 1 connector as per Figure 3.1 for On-aircraft software upgrade or as per Figure 3.2 for Off-aircraft software upgrade.
- a) For software upgrade **on aircraft**, check harness PN 59248-03 is connected to aircraft LGSCU channel 1 connector.
 - b) For software upgrade **off aircraft** in field on bench, check the harness PN 59270-01 is connected to LGSCU J2 connector.

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- (8) Perform the Flight software upload onto the Control lane of the LGSCU for channel 1:
- NOTE: Ensure that Connectors J1 and J2 of harness P/N: 59248-03 are connected to the RS422 converter (refer to Figure 3-1 and Figure 3-2).
- a) Launch "CONTROL SIDE and MONITOR SIDE GSE System monitor" as per 53860 refer to section 4.2
 - b) Load the Flight software onto the Control lane per 53860 refer to section 4.3
 - c) Load the Flight software onto the Monitor per 53860 refer to section 4.3
 - d) Using document 53860 refer to section 4.4 Validate the Control flight software by validating that the CRCs match the SMS Doc # 59537 Rev AF
 - e) Record the CRC onto the SMS Doc # 59537 Rev AF
 - f) Using document 53860 refer to section 4.4 Validate the Monitor flight software by validating that the CRCs match the SMS Doc # 59538 Rev AE
 - g) Record the CRC onto the SMS Doc # 59538 Rev AE
 - h) Power off the LGSCU.
 - i) Reinitialize (GSM – Open Session) "CONTROL SIDE and MONITOR SIDE GSE System monitor" as per 53860 refer to section 4.2
 - j) Power on the LGSCU
 - k) Clear the AS and OS fault logs per 53860 refer to section 4.5.

NOTE: The AS fault log is only located on the Control Path of each channel where the OS fault log is located on both the Control Path and Monitor Path of each channel. When erasing the AS fault log the GSE label ' sClearNVMZonesAction ' will return a decimal value of 8 when erasing is complete. When erasing the OS fault log the GSE label ' ClearNVMZonesAction ' will return a decimal value of 16 when erasing is complete.

For further information regarding how to erase the fault logs refer to document 53860 section 4.5.

- l) Power off the LGSCU.

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Perform the Flight software upload onto the Control lane and Monitor lane of the LGSCU for channel 2 of the LGSCU.

- (9) Switch from channel 1 to channel 2.
- a) For software upgrade **on aircraft**, disconnect harness PN 59248-03 from the aircraft LGSCU channel 1 connector. Connect harness PN 59248-03 to aircraft LGSCU channel 2 connector.
 - b) For software upgrade **off aircraft** in field on bench, ensure the 28VDC supply is OFF. Disconnect harness PN 59270-01 from the LGSCU J2 connector and connect harness PN 59270-01 to LGSCU J5 connector.
- (10) Perform the Flight software upload onto the Control lane and Monitor lane of the LGSCU for channel 2 by repeating steps from (8).

C. Part Re-Identification

- (1) Option 1
- a) Update the LGSCU Identification label on the face of the unit by modifying the Strike Plate to CNTRL STPL 8 and MNTR STPL 8 and SLS PN 10-345203-~~006~~ with the engraving pen.
- (2) Option 2
- a) Remove the LGSCU Identification label from the face of the unit by using an Exacto Knife and keep the old Identification label until having completed step (f).

CAUTION: Ensure that the paint and metal are not damaged during label removal.

- b) Remove any Adhesive residue left on the housing with Isopropyl Alcohol.
- c) Using the serial number located on the removed label in step (a) engrave the LGSCU serial number onto the new supplied LGSCU label P/N: 59046-09.
- d) Engrave the new LGSCU part number and strike plate as follows:
 - P/N 59000-01
 - CNTRL STPL 8 and MNTR STPL 8
 - SLS P/N 10-345203-006.
- e) Install the new self-adhesive LGSCU label P/N: 59046-09 with the same engraved serial number onto the LGSCU, as per PCS-6000.
- f) Complete and return the original signed Software Modification Sheets with the scanned copy of the removed LGSCU Identification label to the Quality Department at Safran Electronics & Defense Canada Inc. through Safran Landing Systems-VEL Technical Assistance & Spares Support Center.
- g) Discard the Identification label removed from LGSCU in step (a).

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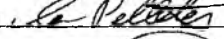



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SIGN OFF SHEET

Prepared by:	Ian Pelletier 	Date: February 25, 2020
Checked by:	Lvall Brownlee 	Date: February 25, 2020
Engineering Approval by:	Jon Novacek 	Date: February 25, 2020
Approved by:	Ron Gaston 	Date: 2020-02-25

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Request for Information

For any information related to this Service Bulletin please contact:

1. Superjet International S.p.A.

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Reporting Sheet

Please, fill the form and send to:

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Fax: +39 041 3900593

inservicedata@superjetinternational.com

MSN	Tail No.	Embodi ment date	A/C FH		Service life	Note
			F.H	Half a year	Year	

OPERATOR:

SURNAME INITIALS/POSITION:

SIGNATURE:

DATE:

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Evaluation Form

The purpose of this form is to receive data which will be used in a process of quality improvement of our Service Bulletins as well as for operation and maintenance documentation update.

Please, fill in the form and send it to the following email or fax:

sb@superjetinternational.com

Fax: +39 041 3900593

Service Bulletin number and title	
Operator	
Aircraft MSN	

	Good		Poor	
- Quality rating of the Service Bulletin	4	3	2	1
- Quality rating of the illustrations	4	3	2	1
- Is the Service Bulletin easy to understand?	Yes		No	
- Is the Service Bulletin easy to use?	Yes		No	

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If no, please mark the Service Bulletin sections that caused difficulties and give a short description of the issue.

Summary

- Reason
- Effectivity

- Nature of Work
- Embody by
- Embodiment location
- Embodiment due date
- Source of finance
- Condition of supply
- Life limit/limit of validity change

- Approval
- Standard options
- Appendices

Planning Information

- Safety measures

- Concurrent requirements

- Manpower
- Weight and balance
- Electrical load data

- Check flight
- Software accomplishment summary
- Reference
- Publications affected

Material Information

- List of kits
- List of consumables – Operator supplied
- Tools
- Special tools

Accomplishment Instruction

- Preparation
- Procedure
- Operational Test
- Close-Up
- Documentation

DESCRIPTION:

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