

GENEREAL SERVICE LETTER

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General Service Letter No. 3041/19 - 2nd issue

This General Service Letter supersedes the issue dated November 20, 2019

Subject : User memo in the frame of Service Bulletin format and content evolution

Dear Sir or Madam,

In 2017 Safran Helicopter Engines launched a project to improve technical documentation based upon the capture and analysis of operator's feedbacks.

During Customers Councils, daily exchanges with our Field Representatives or through satisfaction surveys, the operators requested Safran Helicopter Engines to work on Service Bulletins (SB) simplification.

This General Service Letter introduces changes adopted to make SBs shorter and clearer consequently to above request:

- A. Creation of a new cover page** with all SB key information including the quick identification of the equipment concerned and the application conditions.
- B. Re-introduction of SB date** and addition of information upon the previous issues.
- C. Simplification of the browsing** in the SB through introduction of hyperlinks.
- D. Rationalization of SB content** through deletion of certain paragraphs.

These changes will be incorporated by the end of 2019 on any new SB (original issue).

In the rest of this General Service Letter, you will find all details of these changes A, B, C, D, as well as additional information necessary for a good reading and compliance with the SBs.

We hope that these improvements will meet your expectations. Please contact us for any further information or assistance.

Yours faithfully,

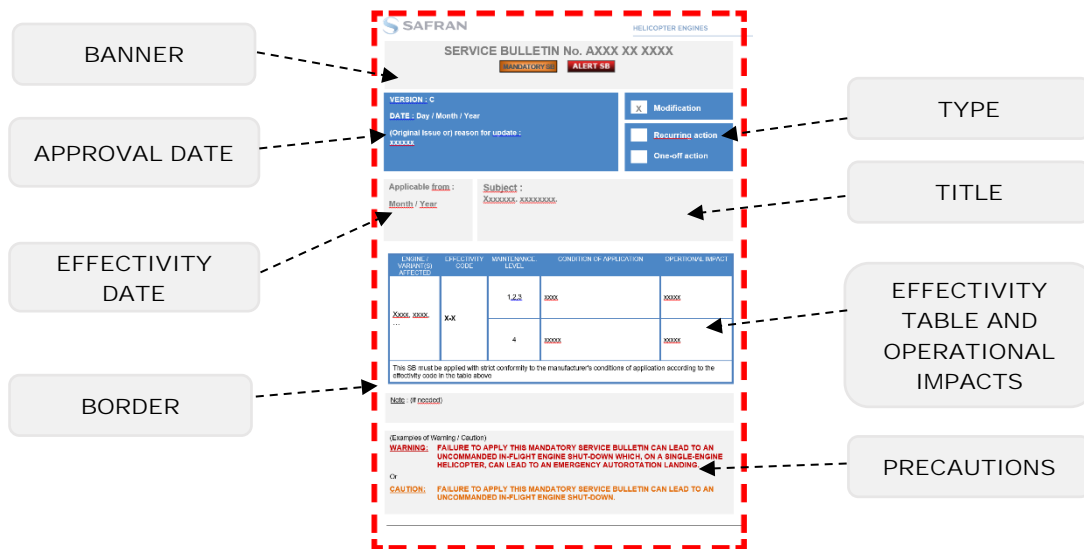
Technical Support Department



J.F. ESCURET

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A. Creation of a new cover page with all the key information of the SB (Appendix 1):



o The banner:

Similar to the header of each SB page, the top banner on the cover page indicates the SB number, its mandatory or non-mandatory classification, as well as the possible SB "Alert" status. The use of "flags" similar to those existing on the customer portal allows the SB identification to be harmonized.



⇒ Reminder on SB classifications:

Since 2004, the only identified classification of an SB (See table stating the compliance conditions in Appendix 2) is "Mandatory" when codes 1, 1-A or 1-B are applied. Mandatory SBs are subject to the issue of Airworthiness Directives by the airworthiness authorities.

The "Mandatory" classification is now identified by a new "flag" **MANDATORY SB** in the SBs, on the customer portal and in the SB interactive indexes.

o The border = "Alert" status:

The red dotted border frame on all pages of an SB and the "Alert SB" flag in the header identify the "Alert" status. This "Alert" status only concerns Mandatory SBs and is affixed to any SB requiring immediate consideration by the recipients upon receipt, often due to the urgent nature of the action requested by the SB.

o The Type of SB:

Since July 2018, a box on the Service Bulletin identifies the type of SB:

- Design Change
NB: in the case of a design change classified as « Significant Major Change », a new engine variant is certified. As a result, there is no SB for a « Significant Major Change ».
- Specific Action: mainly a check (a requirement for a periodic or one-off action)



Only one of the three possibilities can be filled in.

- The SB approval date:

VERSION : C
DATE : Day / Month / Year
(Original Issue or) reason for update :
xxxxxx

This is the approval date of the SB consulted. This date is also reminded, with the SB version on each SB footer.

- The SB effectivity date:

Applicable from :
Month / Year

This is the month when this SB becomes effective and must systematically be complied with, according to the application conditions. This is the date all resources (parts, tools, documentation, etc.) required for this procedure are available past this date. However if these resources (parts, tools, documentation, etc.) are available any earlier, the SB may be applied prior to the effectivity date. In case of immediate application of the SB, the "Application as soon as this SB is issued" mention will be written instead of a given month. Remember the SB issue date is provided in the customer portal.

- The SB effectivity table and operational impacts:

The effectivity table is now incorporated solely in the SB cover page. It identifies the SB application specificities for all maintenance levels as identified in the summary table stating the compliance conditions included in each modification index and mentioned in the appendix 2.

ENGINE / VARIANT(S) AFFECTED	EFFECTIVITY CODE	MAINTENANCE LEVEL	CONDITIONS OF APPLICATION	OPERATIONAL IMPACT
Xxxx, xxxx, ...	X-X	1,2,3	xxxx	xxxx
		4	xxxxx	xxxx
This SB must be applied with strict conformity to the manufacturer's conditions of application according to the effectivity code in the table above				

- In most SBs, for a given SB code on a given engine variant, an application condition is described:
- for application by qualified personnel of maintenance level 1, 2 (refer to General Service Letter No. 2717) and level 3 (deep maintenance in a maintenance center or at operator's site),
 - for application by level 4 qualified personnel (activities in a repair center).

However it is possible in certain SBs to specify the condition of application of a given code for a specific maintenance level. So for certain codes the description of the application condition may be fitted or specified according to the actions requested through the SB. This could happen for example with codes 2-3, 2-A-2 or 2-A-3 for level 3, but not only.

The "operational impact" column identifies a feature related to the application of the SB such as what could impact the availability of the equipment concerned (Ex: requires a cure time = 24 hr). As a basis, major ITEM to be removed will be mentioned.

This SB effectivity table can sometimes be completed with information in the form of a "Note" below the table and a hyperlink to a list of identified equipment concerned in the case of containment for example.

○ Precautions

For certain SBs, this zone, located at the bottom of the cover page highlights the risks in case of non-compliance with the SB.

(Examples of Warning / Caution)

WARNING: FAILURE TO APPLY THIS MANDATORY SERVICE BULLETIN CAN LEAD TO AN UNCOMMANDED IN-FLIGHT ENGINE SHUT-DOWN WHICH, ON A SINGLE-ENGINE HELICOPTER, CAN LEAD TO AN EMERGENCY AUTOROTATION LANDING.

Or

CAUTION: FAILURE TO APPLY THIS MANDATORY SERVICE BULLETIN CAN LEAD TO AN UNCOMMANDED IN-FLIGHT ENGINE SHUT-DOWN.

B. Re-introduction of the SB date and additional information upon the previous issues (Appendix 1).

Since end of 2018, the SB date is no more provided in the document.

In SBs it is now reincorporated in the cover page. This date is the SB approval date.

In the event of an SB update, paragraph "1.3 Revision history" indicates the SB approval date as well as the main reason for the update, for each version prior to the version consulted. Example of an SB consulted in Version C:

Version	Date	Main reason for update
A	DD-MM-YYYY	Original Issue
B	DD-MM-YYYY	<u>XXXX</u>

As a reminder: the approval date of the SB consulted and its issue date ("Put online") are available:

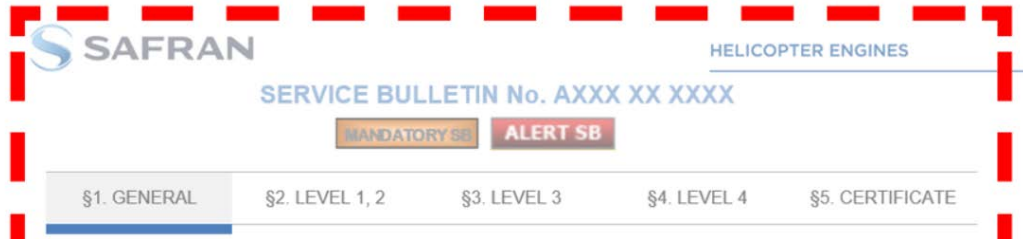
➤ in the customer portal through access to each SB:

➤ and in the SB interactive indexes:

SB	Description	Observation	TU	Publish date	Revision N.	New SB	Airworthiness directive	Applicability code	Variant
292 72 2212	Module M02 (Axial compressor). Replacement of front and rear axial bearings	2B-2B1-2B1A-2C-2C1-2C2-2CPM-2C2CG-2D-2E-2H-2N-2S1-2S2	TU 212	29-APR-2019	B	No		3	ARRIEL 2D

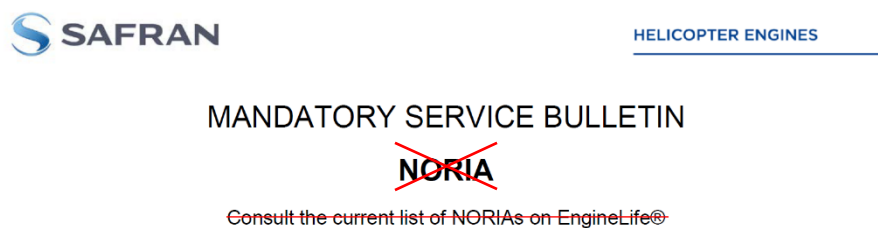
C. Simplification of the browsing in the SB: introduction of a tab and hyperlinks

A browsing tab with 5 branches is incorporated at the top of each SB page. These tabs allow you to navigate quickly in the pdf format document through links from one main paragraph to another. For the compliance certificates, a paragraph (no. 5) has been created as well as hyperlinks to access them from the relevant chapters.



D. Rationalization of the SB content through removal of useless/redundant information.

- Change in the structure of § 1 "General": "Purpose", "Reason", "Description" become "Context", "Analysis", "Solution" and are included in a "Reason" paragraph.
- Case of SB associated to a Noria: the SB will no longer bear the "Noria" indication:

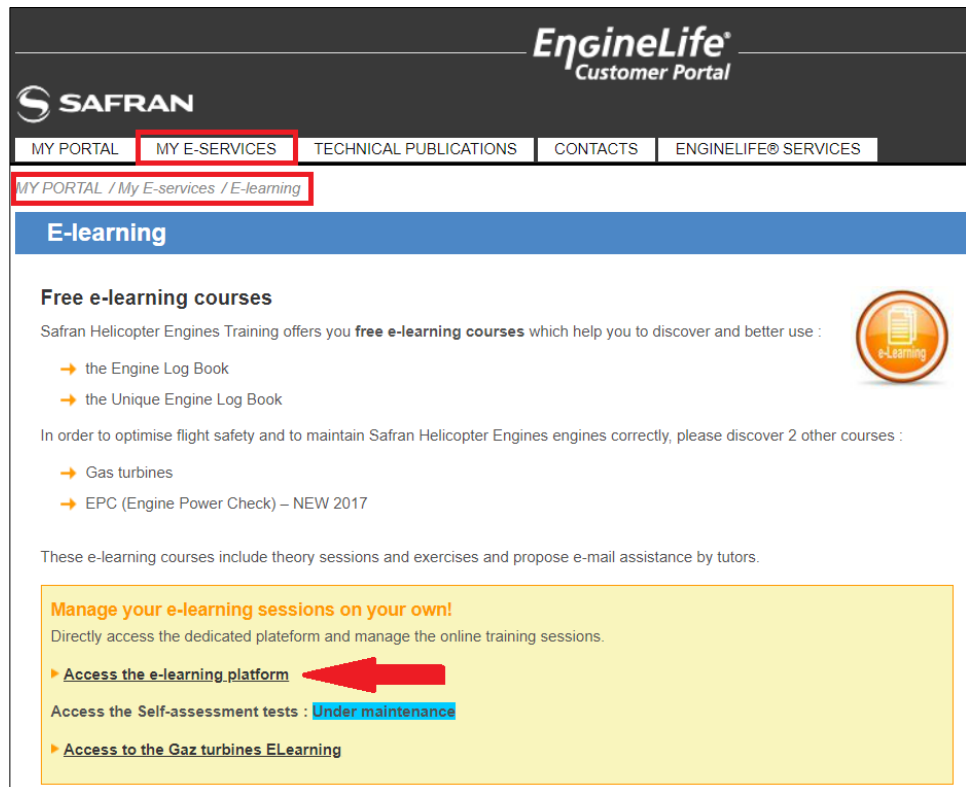


Advantages for the customers: avoids SB versioning at the end of a Noria and hence reduces e-mail notifications associated to consequent updates.

Alternative means in place to find NORIA information:

- "[List of Norias](#)" Excel tracking file is available in the customer portal, enabling the operator to know Norias in progress/ended.
 - A new flag **NORIA ENDED** has been created in the customer portal. An SB subject to a Noria in progress or ended will be identified in the customer portal through this dedicated flag. This information will also be included in interactive SB indexes and in the extractions of these indexes in the Excel format.
 - The search engine (advanced search mode) also changes and will allow you to look for an SB according to the "Noria" or "Noria ended" criteria.
- To simplify understanding: systematic use of flowchart/block diagram to describe the actions requested by the inspection SBs (except special cases).
 - Writing in Simplified Technical English and in a more concise editorial style.
 - Deletion of useless or redundant information with the customer portal:
 1. 1.5) Conditions of applications
 2. 1.6) Definition
 3. 2.9) Publication references.
 - Deletion of repeated/duplicated information on several paragraphs or pages.

- Deletion of information dedicated to “how to read a SB or identify a particularity”, which are included into:
 1. this General Service Letter
 2. specific guides (example: simplification of § Identification by referring to guides U441 or U797).
 3. a video tutorial that explains how to fill the engine logbook. Access to tutorial :
 - a) Login to your account on « [EngineLife Customer Portal](#) »
 - b) Follow the path “my E-services > Training > E-learning”
 - c) Click on the link “Access the e-learning platform”



- We would also like to remind you that if you have any doubts about entering an SB in the engine logbook, you can send your questions to LogBook Documentation Support LogBook tmf-u0fct916@safrangroup.com

APPENDIX 1 – Example of the first 2 pages of an "Alert Mandatory SB" template



HELICOPTER ENGINES

SERVICE BULLETIN No. AXXX XX XXXX

MANDATORY SB

ALERT SB

VERSION : C

DATE : Day / Month / Year

(Original Issue or) reason for update :
xxxxxx

Modification

Recurring action

One-off action

Applicable from :
Month / Year

Subject :
Xxxxxxxx. xxxxxxxx.

ENGINE / VARIANT(S) AFFECTED	EFFECTIVITY CODE	MAINTENANCE LEVEL	CONDITION OF APPLICATION	OPERATIONAL IMPACT
<u>Xxxx. xxxx.</u> ...	X-X	<u>1,2,3</u>	<u>xxxx</u>	<u>xxxxx</u>
		4	<u>xxxxx</u>	<u>xxxxx</u>

This SB must be applied with strict conformity to the manufacturer's conditions of application according to the effectivity code in the table above

Note : (if needed)

(Examples of Warning / Caution)

WARNING: FAILURE TO APPLY THIS MANDATORY SERVICE BULLETIN CAN LEAD TO AN UNCOMMANDED IN-FLIGHT ENGINE SHUT-DOWN WHICH, ON A SINGLE-ENGINE HELICOPTER, CAN LEAD TO AN EMERGENCY AUTOROTATION LANDING.

Or

CAUTION: FAILURE TO APPLY THIS MANDATORY SERVICE BULLETIN CAN LEAD TO AN UNCOMMANDED IN-FLIGHT ENGINE SHUT-DOWN.



SERVICE BULLETIN No. AXXX XX XXXX

MANDATORY SB

ALERT SB



§1. GENERAL

§2. LEVEL 1, 2

§3. LEVEL 3

§4. LEVEL 4

§5. CERTIFICATE

1 GENERAL**1.1 Reason****1.1.1 Context**XXXXX**1.1.2 Analysis**XXXXX**1.1.3 Solution**XXXXX**1.2 Approbation**

The technical information contained in this document has been approved under the Design Organization Approval No. EASA.21J.070.

This Mandatory SB is subject to an Airworthiness Directive.

1.3 Previous update history

Version	Date	Main reason for update
A	DD-MM-YYYY	Original Issue
B	DD-MM-YYYY	<u>xxxx</u>

End of section §1

« General »

SB VERSION : C

DATE : DD/MM/YYYY

APPENDIX 2 – Summary table of the conditions of application (extract from ARRIUS 2B2 modification index)

SAFRAN HELICOPTER ENGINES		ARRIUS 2 B2		MODIFICATION INDEX
Table stating the compliance conditions				
CODE	CLASSIFICATION	APPLICATION AT A REPAIR CENTER QUALIFIED FOR LEVEL 4	APPLICATION AT THE OPERATOR'S SITE OR BY A MAINTENANCE CENTER QUALIFIED FOR LEVEL 1, 2 AND 3	
1	MANDATORY	Application before delivery.	Immediate application before the next flight (upon receiving this S.B.).	
1-A	MANDATORY	Application before delivery.	Application within "X" operating hours (counted from receiving this S.B.).	
1-B	MANDATORY	Application before delivery.	Application before a lead time (calendar or otherwise determined).	
2-1		Application upon first return to an approved Repair Center, regardless of the reason for return.	Application upon receiving parts from Safran Helicopter Engines.	
2-2		Application upon first return to an approved Repair Center, regardless of the reason for return.	Application during next maintenance operation (engine or helicopter).	
2-3		Application upon first return to an approved Repair Center, regardless of the reason for return.	Application upon first return to a Maintenance Center qualified for level 1, 2 and 3	
2-4		Application upon first return to an approved Repair Center, regardless of the reason for return.	Application if access is provided during a maintenance operation.	
2-5		Application upon first return to an approved Repair Center, regardless of the reason for return.	Application required to allow another S.B. to be incorporated.	
2-A-1		Application upon first return to a R.C. if the repair/overhaul being performed provides access to the part that is subject of the S.B.	Application if the element concerned is replaced (module, accessory, equipment or part).	
2-A-2		Application upon first return to a R.C. if the repair/overhaul being performed provides access to the part that is subject of the S.B.	Application if access is provided during a maintenance operation.	
2-A-3		Application upon first return to a R.C. if the repair/overhaul being performed provides access to the part that is subject of the S.B.	Application upon customer request.	
2-B		Application during overhaul or if the element that is the subject of the S.B. is replaced (discarded).	Application upon customer request.	
2-C-1		Application if the element that is the subject of the S.B. is replaced (discarded).	Application if the element that is the subject of the S.B. is replaced (discarded).	
2-C-2		Application if the element that is the subject of the S.B. is replaced (discarded).	Application upon customer request.	
3		Application following depletion of existing stock.	Application upon customer request or following depletion of existing stock.	
4		Application upon customer request.	Application upon customer request.	
5		Application restricted to the manufacturer's discretion.	Application restricted to the manufacturer's discretion.	
5-1		Alternative part subject to availability.	Alternative part subject to availability.	
5-2		Introduction of a capability (upon customer request).		
Other compliance codes				
A	"Cancelled" or "abandoned" modification			
B	"Basic" modification			
D	"Declassified" modification			
S	"Withdrawn" modification			
NA	"Non Applicable" modification			
O	Modification in the Design Instruction Sheet			
X 319 N3 975 2				
				Page 2 November 14, 2019