

# Landing Systems

Title:	<b>ENGINEERING CHANGE REQUESTS</b>	Doc No:	<b>LS-LG-W-309-ENG</b>
Issuing Office:	<b>LANDING GEAR ENGINEERING</b>	Revision:	<b>02</b>

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## 1.0 **PURPOSE/SCOPE**

### 1.1. **Purpose**

1.1.1 The purpose of this document is to define the process for the management of engineering change requests within Landing Gear (LG) Engineering. The process has the following objectives:

- Provide a manageable system for capturing costs associated with implementing Engineering Change Requests.
- Provide a manageable system for capturing engineering hours associated with implementing Engineering Change Requests.
- Provide a manageable system for capturing timelines associated with implementing Engineering Change Requests.

1.1.2 This document also describes the procedures for processing the Engineering Change Proposal Request Form (ECPR), as defined in Section 5.0 of this procedure

### 1.2. **Scope**

This document provides the applicable procedures to generate a request for change to technical data, including:

- Drawings
- Models
- Parts Lists
- Notes Lists
- **Proprietary Specifications or Acceptance Test Procedure (ATP)**

**ECPR can also be used for other engineering documents (ex. D, S or P docs), but not mandatory.**

### 1.3. **Applicability**

The requirements in this document are applicable to all Collins Landing Systems (Landing Gear) personnel using or reviewing the ECPR form, including design contractors, suppliers and temporary (co-op) employees.

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## **2.0 RESPONSIBILITIES**

### **2.1. ECR Coordinator**

The ECR Coordinator is responsible for assigning the ECPR number, entering the ECPR into the PLM system, and routing it to the Design Lead/Project Lead.

The ECR Coordinator is responsible for closing the ECPR and notifying the originator of the request's closure.

### **2.2. Design/Project/Material Lead**

The appropriate Design, Project or Material Lead is responsible for reviewing, approving or rejecting the ECPR and creating the approval routing.

On non-proprietary programs, the Design or Project Lead is responsible for communicating the change request (for review or incorporation) to the customer, receiving the engineering package from the customer, and releasing the engineering package to Design Engineering for release in the PLM system.

The Design or Project Lead is responsible for transferring the ECPR onto an ECP.

### **2.3. Subject Matter Expert**

When necessary, the Design, Project or Material Lead may determine that specific Subject Matter Expert (SME)<sup>1</sup> review of the change request is required and will add them to the ECPR routing.

Each SME is responsible for reviewing their area of expertise and approving/rejecting as appropriate.

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<sup>1</sup> SME includes Stress, Performance, Materials, Production Planning, Manufacturing Engineering or Quality

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## 2.4. Program Manager

The Program Manager is responsible for reviewing, approving or rejecting the ECPR and must decide if the change request should be presented at CCB and/or submitted to Customer for approval (outside of the Task Review tool).

The Program Manager can also transfer the ECPR onto a PCR and may also be responsible for communicating the change request to the customer, receiving the engineering package from the customer, and submitting the engineering package to Design Engineering for release in the PLM system.

## 2.5. Customer

Depending on contract requirements, the customer may be the final authority for the change request to proceed.

## 2.6. Design Engineering

Design Engineering is responsible for final review of the ECPR, **rejecting** or incorporating the change into the engineering technical data. Design Engineering **may** also be responsible for communicating the change request (for review and/or incorporation) to the supplier or customer, receiving the engineering package from the supplier or customer, and releasing the supplier's or customer's engineering package.

Design Engineering can also transfer the ECPR onto an ECP.

## 2.7. Procurement/Supply Chain

Procurement/Supply Chain (**also referred to as the "Collins Contact"**) is responsible for reviewing, approving or rejecting the ECPR if/when the Design/Project/Material Lead has identified them in the ECPR routing.

Procurement/Supply Chain is also responsible for communicating the change package to the supplier via Content Server.

## 2.8. **Materials (M&PT)**

**Materials is responsible for incorporating and releasing the change into the engineering documentation.**

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## 3.0 REFERENCES/FORMS

The following Landing Gear documents are applicable to, form part of, or are referenced in this procedure: <sup>2</sup>

- **LS-LG-P306-ENG** Engineering Release Record (ERR)
- **LG DIV PM PR 003** Change Management Procedure
- **LS-LG-P307-ENG** Engineering Change Proposal Development Procedure
- **LS-LG-W-314-ENG** Engineering Change Proposal Request: Task Manager and Task Review Data Entry
- **COL-CMS-POL-0001** Collins Management System
- **LS-LG-F-014-ENG** Engineering Change Proposal Request (ECPR) - Internal

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<sup>2</sup> Any documents referenced are considered applicable at time of writing. Changes/revisions to the documents and/or their replacements will be captured during the next release of this procedure.

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## 4.0 DEFINITIONS

**Configuration Change Board (CCB)** - The CCB is a group of stakeholders/functional leaders responsible for functional analysis of proposed changes against the current state, and implementation of change as applicable.

**Engineering Change Proposal Request (ECPR)** - The ECPR form is used to notify Engineering of the need for a change against an Engineering drawing, model, Parts List, Notes List, **Specifications, Acceptance Test Procedure or other engineering document.**

**Engineering Change Request (ECR)** - The ECR is the PLM object used to implement and track Engineering changes, within the PLM system. It's also the object name used for the ECPR in the PLM system.

**Engineering Release Record (ERR)** - The ERR process is used to authorize the release of all engineering changes and related customer supporting configuration documentation.

**Product Lifecycle Management (PLM)** - The Goodrich Landing Gear PLM System manages and secures the Engineering intellectual property and their processes in a collaborative environment for real-time access to current information by the corporation, customers and suppliers.

**Program Change Request (PCR)** - Document used to communicate and gather impact on all affected departments throughout the organization. (Ref. LG DIV PM PR 003)

**Engineering Change Proposal (ECP)** - Generic name for engineering document used to communicate change request to the Configuration Change Board and to the Customer. An ECP can be program specific and can be converted into a PCR as required (Ref. LG DIV ENG WI 001).

**Engineering Data Package** – Document, Model, Sheet, Parts List or any other engineering data affected by the ECPR.

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## 5.0 PROCEDURE

### 5.1. Change Request Form

Engineering Change Requests objects (ECR) are generated using Engineering Change Proposal Request (ECPR) Form LS-LG-F-014-ENG. The ECPR is used as a means to formally document any problem, proposal suggestion or change request to an Engineering drawing, model, Parts List, Notes List or document. The intent of the ECPR is to advise Engineering of proposed changes, which may correct any error or omission, or improve the manufacturing or design aspects of a part or assembly.

The ECPR process is a twofold process which includes a “Review” cycle (approvals) cycle and an Action cycle (incorporation). The approval cycle only indicates intent to change the engineering or document. The incorporation cycle is completed when an ERR has been raised.

The ECPR is considered closed when the incorporation cycle is completed and the ECPR Report has been emailed to the originator (internal) or the supplier’s contact.

**Note:** *Failure to fill out the ECPR form in its entirety may result in Engineering and/or Program Management rejecting the form and cause delays in review and implementation of the changes.*

### 5.2. Compiling the Form<sup>3</sup>

5.2.1 LS-LG-F-014-ENG is an electronic form and is available in Pilgrim and in Content Server. The ECPR form can be initiated by any person requesting an Engineering change either internally, or externally. ECPRs can be raised for production and spares data.

ECPRs are serialized and the ECPR # is obtained from the ECR Coordinator ([LGD.Glgecpr@utas.utc.com](mailto:LGD.Glgecpr@utas.utc.com)).

<sup>3</sup> The ECPR form contains legal, government and proprietary data markings that occasionally change. Always ensure latest issue of the ECPR form is used to ensure data marking is valid and to avoid the ECPR being rejected.

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5.2.2 The ECPR form shall be filled out in a clear and concise manner, as follows:

5.2.2.1. GENERAL INFORMATION – Originator:

- **ECPR #:** Reserved field to be completed by Collins ECR Coordinator.
- DATE INITIATED: Date ECPR is created.
- ORIGINATOR NAME: Identify the person who initiates the ECPR form.
- ORIGINATOR EMAIL: Include the originator's e-mail address.
- SUPPLIER NAME: Identify who supplies the part (internal, inter-co, supplier).
- COLLINS CONTACT NAME: If the ECPR is generated by a supplier, clearly indicate the name of the Collins contact that will need to notify the supplier of ECPR status or work package.

**Note:** *Supplier-generated ECPRs must come through Collins' Content Server > ECPRs to LG folder. ECPRs not routed through Content Server will be rejected.*

- AIRCRAFT PROGRAM: Indicate the aircraft model (i.e. A380, F35, B737, etc...)
- COLLINS DWG/MODEL/DOC #: Indicate the Collins drawing, model or document number which is affected by the change request.

**Note:** *Only one drawing, model or document number can be processed on an ECPR at one time. If there is more than one number specified, the ECPR will be rejected. The drawing, model or document must be a Collins number. Multiple issues per drawing, model or document can be processed on the same ECPR.*

- DWG/MODEL/DOC DESCRIPTION: Briefly state the drawing, model or document title.
- DWG/MODEL/DOC Rev.: Identify the current revision of the drawing, model or document.
- DWG SHT/CAPTURE: Enter the affected drawing sheet number(s) or capture name.
- DWG ZONE: Enter the drawing affected zone (not applicable to Model Based Definition programs).



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- ECPR CLASS: Select one option from the drop down box.

<b>CLASS</b>	<b>DEFINITION</b>
Design Improvement	Part/Assembly design can be improved.
Engineering Data Discrepancy*	Engineering drawing, model, Parts List, Notes List, proprietary Specifications, Acceptance Test Procedure (ATP) or other engineering documentation needs to be corrected or improved.
<b>Manufacturing Producibility*</b>	Manufacturing, assembly or inspection can be improved or cannot be performed with the current equipment.
In-Service Support	Drawing, Model, Specification needs to be corrected/updated to support in-service reparability.
Request for Clarification	No drawing, model or specification change required. Additional information only.

\* Must be used in conjunction with the IMPACT

- ECPR IMPACT: Select one option from the drop down box

<b>IMPACT</b>	<b>DEFINITION</b>
Producible *	Issue does not prevent the manufacturing, assembly, inspection or delivery of the part.
Non-Produced *	Issue prevents the manufacturing, assembly, inspection or delivery of the part.

\* Mandatory only for Engineering Data Discrepancy and Manufacturing Producibility

- Technical Data - Indicate if the content of the ECPR is considered Technical data (YES) or not (NO)
- **Jurisdiction/Classification - Use this section to provide all classifications. See section 5.2.3.2. and 5.2.4. When applicable also provide xClass reference number associated to the above JC. See section 5.2.3.2.**
- Ref. QN(s) or OTHER - If the change is quality related, enter the affected QN(s), otherwise use this space for any other reference needed.

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## 5.2.2.2. PROBLEM – Originator:

The originator shall clearly indicate the nature of the problem such as (but not limited to) identifying the affected model, drawing sheet number, zone, view, dimension, note, Notes List, Parts List, document paragraph, or exact Engineering characteristic.

## 5.2.2.3. RECOMMENDATION – Originator:

The originator shall clearly describe the FROM statement (i.e. condition prior to the change) and the TO statement (i.e. condition after the change).

## 5.2.2.4. BENEFITS – Originator:

- Price Reduction (per Unit): For Design Improvement and Manufacturing Producibility (Producibility) ECPRs, it is expected that cost savings will accompany the ECPR request.
- Lead Time Reduction (per Unit): For Design Improvement and Manufacturing Producibility (Producibility) ECPRs, where cost savings are not possible, it is expected that Lead Time reduction will accompany the ECPR request.
- Additional Comments: For Design Improvement and Manufacturing Producibility (Producibility) ECPRs, where cost savings or lead time reduction are not possible, it is expected that a detailed description of the benefit of this change be added in this section. The continuation sheet can also be used for that effect but must be referenced in this section.

**NOTE:** *Failure to fill out the Benefits section can result in the form being rejected and cause delays in review and implementation of the changes.*

## 5.2.2.5. CONTINUATION SHEET - Originator

The Continuation Sheet can be used for any additional information pertinent in the evaluation of the change such as (but not limited to) photos, special instructions, email communications, etc. It is the only space where attachments can be added.

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## 5.3. Process Flow

5.3.1 The flow of an ECPR as it is being processed is shown in Appendix I and is detailed in LS-LG-W-314-ENG.

5.3.2 The ECPR shall be completed as described in Section 5.2.

### 5.3.3 Submission of internal ECPRs

5.3.3.1. Internal domestic (Oakville) ECPR shall be reviewed for technical data by the originator. If the document is found to contain no technical data, the originator will mark ECPR as NSR in the Jurisdiction/Classification (JC) section and email the word document to the ECR Coordinator ([LGD.Glgecpr@utas.utc.com](mailto:LGD.Glgecpr@utas.utc.com)).

If the ECPR contains technical data, the originator will not mark the ECPR and will email the word document to the ECR coordinator. The ECR coordinator will have the responsibility to obtain the Canadian (CA) and US classification.

The ECR coordinator will review for completeness (reject if incomplete), and log it into the PLM System (which will automatically generate a number), and notify the originator via email.

5.3.3.2. Internal international (non-Oakville) ECPR shall be reviewed for technical data by the originator. If the document is found to contain no technical data, the originator will mark ECPR as NSR and email the word document to the ECR Coordinator ([LGD.Glgecpr@utas.utc.com](mailto:LGD.Glgecpr@utas.utc.com)).

If the ECPR contains technical data, the originator must:

- Request ECPR number to ECR Coordinator (the mail should NOT contain any attachment and should only contain the part number affected by the request (ex: please provide ECPR number for part 1234567-11))
- ECR Coordinator will provide ECPR number (ECPR\_10XXXX) for originator to proceed with xClass/Texport.
- When doing xClass/Texport, originator must use the exact number provided by ECR Coordinator
- Originator posts ECPR to Content Server (Content Server > Business Unit Sites (Internal Collaboration) > Landing Systems > LG ECPR Classified) with

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Jurisdiction/Classification field completed (including all xClass Classification Request #).

The ECR coordinator will review for completeness (reject if incomplete), and log it into the PLM System (which will automatically generate a number), and notify the originator via email. The ECR Coordinator will proceed with the local Jurisdiction/Classification and then will route the ECPR to a Design/Project/Materials Lead.

## 5.3.4 Submission of Supplier initiated ECPRs

ECPR shall be done through the supplier's [ECPR's TO LG](#) Content Server folder. The ECR Coordinator will retrieve the ECPR, review for completeness, log it into PLM system (which will automatically generate a number), notify the Supplier AND their Collins Contact (as indicated on ECPR) of the number and proceed with the Jurisdiction/Classification. The ECR Coordinator will proceed with the Jurisdiction/Classification and route the ECPR to a Design/Project/Materials Lead.

Supplier may or may not provide Jurisdiction/Classification as mandated by their organisation.

5.3.4.1. **IMPORTANT:** if the Collins Contact receiving notification is not the right person, the ECR Coordinator must be informed (see next step).

5.3.4.2. **IMPORTANT:** Posting the closed ECPR/Closure report will remain the responsibility of the Collins Contact.

## 5.3.5 Design/Project/Materials Lead ECPR Assessment

5.3.5.1. If a change is not required and/or feasible, the Design/Project/Material Lead shall enter a detailed reason for their decision and reject the change in the PLM system. The ECR Coordinator will be notified and send the ECPR Status Report to the originator. The ECPR is automatically rejected in the PLM System.

5.3.5.2. If it is determined that the ECPR should be transferred to another process (Engineering Change Proposal (ECP) for example), the Design/Project/Materials Lead will indicate the number in the "Forms" and complete their task. The ECR Coordinator will be notified and send the ECPR Status Report to the originator.

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5.3.5.3. If it is determined a change is necessary, the Design/Project/Material Lead creates an approval routing and an incorporation routing in the Task Manager and proceed to section 5.3.6.

5.3.5.4. The Program Manager (PM) shall be added on every routing.

## 5.3.6 ECPR Review Cycle<sup>4</sup>

5.3.6.1. The Design/Project/**Material** Lead completes their review activity by including an estimate of the number of Engineering hours and/or any other relevant information required to implement the change in the Remarks section and complete their Task Manger activity. The approved ECPR shall then be forwarded to the next task (SME or directly to PM) in the task routing for review and approval.

5.3.6.2. The PM shall review each ECPR (other than Clarification Request ECPR) for scheduling and financial impact. If the Program Manager determines the change is not required, the Program Manager will reject the ECPR and the ECR Coordinator will be notified and send the ECPR Status Report to the originator. The ECPR is closed by the PLM system.

5.3.6.3. The PM may determine that a Program Change Request (PCR) is required to manage the change. Once the PCR is raised, the PM will indicate the number in the PLM system and complete their task. The ECR Coordinator will be notified and send the ECPR Status Report to the originator and the ECPR is closed by the PLM system.

5.3.6.4. In the event that it is determined a change is commercially acceptable, Program Management will approve the ECPR by completing their task review activity.

## 5.3.7 ECPR Implementation Cycle<sup>5</sup>

5.3.7.1. If the change request involves a change to customer data, Engineering shall generate an engineering change proposal in accordance with contract requirements and will transfer the ECPR to the ECP process per **LS-LG-W-314-ENG**. Should an ECP not be required,

<sup>4</sup> An ECPR can be rejected at any level of the review cycle. The ECR Coordinator is notified of the rejection and will send out the ECPR Status Report to the originator or the Collins contact and copies all approvers that have already completed their task. Transferred ECPR are processed the same way.

<sup>5</sup> An ECPR can be rejected in the implementation cycle. The ECR Coordinator is notified of the rejection and will send out the ECPR Status Report to the originator or the Collins contact and copies all approvers that have already completed their task. Transferred ECPR are processed the same way.

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the Customer will be notified of the change request by Design Engineering via an ECM which will include all relevant information. The ECPR can then be closed using the ECM/SEM number used to communicate the change proposal.

5.3.7.2. If the change request involves a change to supplier data, Procurement/Supply Chain will provide them with the change request package. Once the engineering data is completed, the supplier will send back the package to Engineering via ECM or to Procurement via Content Server. Design Engineering will review the package and if acceptable, they will complete the “Design Partner” task, raise the ERR in accordance with LS-LG-P306-ENG and complete their final Task Manager activity (Design Eng > ERR) . The ECPR shall be associated with these Change Objects via the Engineering Release Record (ERR) number.

5.3.7.3. If the change request involves a change to Collins data, Engineering shall incorporate the applicable changes and release the affected items (Change Objects) into the PLM System, raise the ERR in accordance with LS-LG-P306-ENG and complete their Task Manager activity. The ECPR shall be associated with these Change Objects via the Engineering Release Record (ERR) number.

## 5.3.8 ECPR Closure

The ECR Coordinator is notified of the Task Manager activity completion and will send out the ECPR Status Report to the originator (internal ECPR) or Collins Contact (supplier ECPR) and Design/Project/**Material** Lead informing them the ECPR is closed. The Collins Contact is responsible for notifying the supplier.

**NOTE:** *Only the domestic Collins contact will receive a copy of the ECPR; all other originators will need to access the PLM system to view the document. No technical data will be sent via email outside of ECR Coordinator’s location.*

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**Table 1: Turn-Around-Time (TAT)**

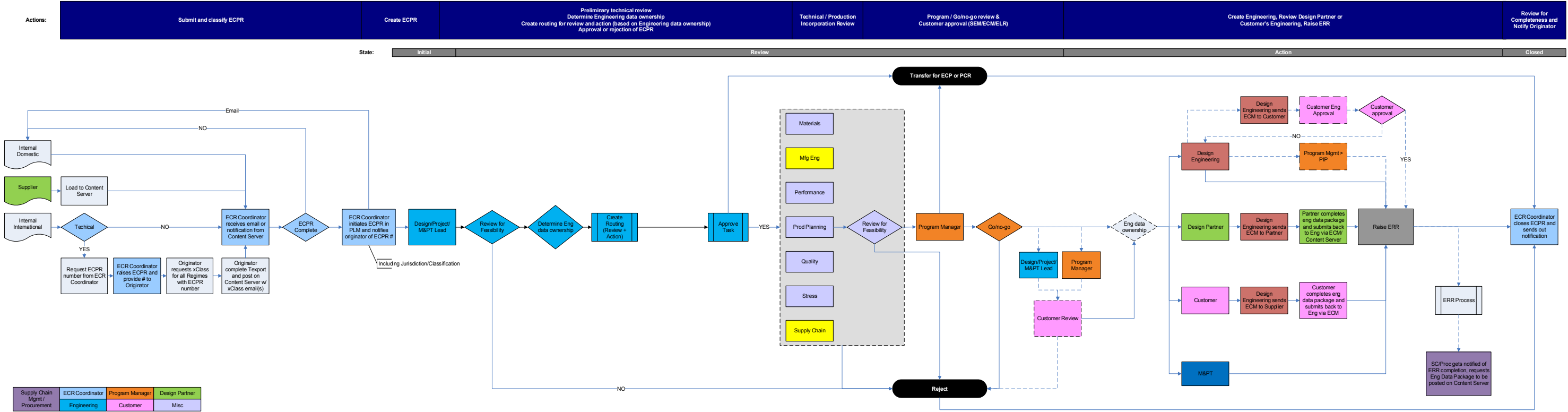
<b>CLASS</b>	<b>TYPE</b>	<b>TAT (d)</b>	<b>DEFINITION</b>	<b>Benefit</b>
Design Improvement		120	Part/Assembly design can be improved.	YES
Engineering Data Discrepancy	Producible	120	Drawing, Model, Specification needs to be corrected. Does not prevent producibility of part.	
Engineering Data Discrepancy	Non-Produced	45	Drawing, Model, Specification needs to be corrected. Prevents producibility of part.	
Manufacturing Producibility	Producible	120	Manufacturing, assembly or inspection can be improved.	YES
Manufacturing Producibility	Non-Produced	45	Manufacturing, assembly or inspection cannot be performed with the current requirements.	
In-Service Support		120	Drawing, Model, Specification needs to be corrected/updated to support in-service repairability.	
Request for Clarification		5	No drawing, model or specification change required. Additional information only.	

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**APPENDIX I - ECPR PROCESS FLOW DIAGRAM**



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## APPENDIX II - SIPOC DIAGRAMS

### ECR COORDINATOR

Suppliers	Inputs		Process	Output		Customers (e)
	Description	Quantified measure		Description	Quantified measure	
Suppliers Ops Tech Pubs Customer	Engineering Change Proposal Request (ECPR)	Email checked daily and ECPRs entered or closed in the system twice daily or as required.	Releasing ECPRs in the PDM system for review and action.  Closing ECPRs when they are completed or have been rejected.	Email record with ECPR number and copy of amended ECPR.  Closure Report with copy of ECPR and signature report.	ECPR number and ECPR closure report ≤ 24 hrs.	Suppliers Ops Tech Pubs Customer

### DESIGN/PROJECT/MATERIAL LEAD

Suppliers	Inputs		Process	Output		Customers (e)
	Description	Quantified measure		Description	Quantified measure	
Suppliers Ops Tech Pubs Customer	Engineering Change Proposal Request (ECPR)	ECPR routing and remarks	Reviewing the ECPR.  Assigning the routing.	ECPR approval and recommendations or ECPR rejection and reasons or other process reference numbers.	ECPR is reviewed, routed, approved or rejected in < 5 to 120 days (ref. LG DIV ENG PR 026, para 2.4)	Suppliers Ops Tech Pubs Customer Reviewers and actionnees.

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## REVIEWERS

Suppliers	Inputs		Process	Output		Customers (e)
	Description	Quantified measure		Description	Quantified measure	
Design/Project/Material Leads	ECPR approvals and recommendations	ECPR remarks	Reviewing the ECPR. Rejecting the ECPR. Transferring the ECPR to another process	ECPR approval and recommendations or ECPR rejection and reasons or other process reference numbers.	ECPR is reviewed, routed, approved or rejected in < 5 to 120 days (ref. LG DIV ENG PR 026, para 2.4)	Suppliers Ops Tech Pubs Customer Reviewers and actionnees.

## ACTIONEES

Suppliers	Inputs		Process	Output		Customers (e)
	Description	Quantified measure		Description	Quantified measure	
Reviewers	ECPR approvals and recommendations	ECPR remarks	Reviewing the ECPR. Rejecting the ECPR. Transferring the ECPR to another process	ECPR approval and recommendations or ECPR rejection and reasons or other process reference numbers.	ECPR is reviewed, routed, approved or rejected in < 5 to 120 days (ref. LG DIV ENG PR 026, para 2.4)	ECR Coordinator

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# Landing Systems

Title:	<b>ENGINEERING CHANGE REQUESTS</b>	Doc No:	<b>LS-LG-W-309-ENG</b>
Issuing Office:	<b>LANDING GEAR ENGINEERING</b>	Revision:	<b>02</b>

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REVISION DESCRIPTION			
Revision	Date	Summary and Reasons for Changes	Originator
00	21-Mar-2016	Document updated to the latest format and nomenclature.	L. St-Pierre
01	13-Jun-2016	<p>Paragraph 2.1</p> <ul style="list-style-type: none"> <li>(delete) The ECR Coordinator is responsible for providing and updating the export classification for internal, non-US ECPRs.</li> </ul> <p>Paragraph 2.7</p> <ul style="list-style-type: none"> <li>(delete) Procurement/Supply Chain is responsible for providing and updating the export classification for supplier originated ECPRs.</li> </ul> <p>Paragraph 4</p> <ul style="list-style-type: none"> <li>"Product Lifecycle Management" was "Product Data Management"</li> </ul> <p>Paragraph 5.2.4</p> <ul style="list-style-type: none"> <li>(delete) and to provide a classification. The SCM/Buyer will update the ECPR and re-post it in the ECPRs Classified Content Server folder.</li> </ul> <p>Paragraph 5.2.5</p> <ul style="list-style-type: none"> <li>(delete) determine the export classification, update the ECPR accordingly</li> </ul> <p>Paragraph 5.3.2.2</p> <ul style="list-style-type: none"> <li>DELETED and following Paragraphs re-numbered accordingly</li> </ul> <p>Appendix I</p> <ul style="list-style-type: none"> <li>Revised to remove classification requirements</li> </ul>	L. St-Pierre
02	29-Mar-2020	<p>Document reformatted to new template</p> <p>All "UTAS" replaced with "Collins"</p> <p>Paragraph 1.2</p> <ul style="list-style-type: none"> <li>(is) "... against an Engineering drawing, model, Parts List, Notes List, proprietary Specifications or Acceptance Test Procedure (ATP). ECPR can also be used for other engineering documents (ex. D, S or P docs), but not mandatory."</li> <li>(was) "... against an Engineering drawing, model, Parts List, Notes List or document."</li> </ul> <p>Paragraph 2.2</p> <ul style="list-style-type: none"> <li>(is) "Design/Project/Material Lead"</li> <li>(was) "Design/Project Lead"</li> <li>(is) "The Design or Project or Material Lead communicates..."</li> <li>(was) "The Design or Project Lead is responsible for communicating"</li> </ul> <p>Paragraph 2.3</p> <ul style="list-style-type: none"> <li>(added) "or Material"</li> </ul> <p>Paragraph 2.6</p> <ul style="list-style-type: none"> <li>(is) Design Engineering is responsible for final review of the ECPR, rejecting or incorporating the change</li> <li>(was) Design Engineering is responsible for final review of the ECPR and incorporating the change</li> <li>(is) Design Engineering may be responsible for communicating</li> <li>(was) Design Engineering is responsible for communicating</li> </ul> <p>Paragraph 2.7</p>	L. St-Pierre

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Revision	Date	Summary and Reasons for Changes	Originator
		<ul style="list-style-type: none"> <li>• (is) Procurement/Supply Chain (also referred to as the "Collins Contact") is responsible for reviewing, approving or rejecting the ECPR if/when the Design/Project/Material Lead has identified them in the ECPR routing.</li> <li>• (was) Procurement/Supply Chain is responsible for reviewing, approving or rejecting the ECPR if/when the Design/Project Lead has identified them in the ECPR routing.</li> </ul> <p>Paragraph 2.8.      Materials (M&amp;PT)</p> <ul style="list-style-type: none"> <li>• (added)</li> </ul> <p>Paragraph 3.0</p> <ul style="list-style-type: none"> <li>• (is) The following Landing Gear documents are applicable to, form part of, or are referenced in this procedure:</li> <li>• (was) The latest issue of the following documents supports this work instruction</li> <li>• (is) LS-LG-P306-ENG</li> <li>• (was) LG DIV ENG PR 035</li> <li>• (is) LS-LG-P307-ENG</li> <li>• (was) LG DIV ENG WI 001</li> <li>• (added) COL-CMS-POL-0001      Collins Management System</li> <li>• (deleted) LG DIV ENG PR 021      Forms - General</li> </ul> <p>Paragraph 4.0</p> <ul style="list-style-type: none"> <li>• (is) "... change against an Engineering drawing, model, Parts List, Notes List, Specifications, Acceptance Test Procedure or other engineering document."</li> <li>• (was) "... change against an Engineering drawing, model, Parts List, Notes List or document."</li> <li>• (is) LS-LG-P307-ENG</li> <li>• (was) LG DIV ENG WI 001</li> </ul> <p>Paragraph 5.1</p> <ul style="list-style-type: none"> <li>• (re-written)</li> </ul> <p>Paragraph 5.2</p> <ul style="list-style-type: none"> <li>• (is) 5.2 Compiling the Form</li> <li>• (was) 5.3 Compiling the Form</li> </ul> <p>Paragraph 5.2.1</p> <ul style="list-style-type: none"> <li>• (is) <a href="mailto:LGD.Glgecpr@utas.utc.com">LGD.Glgecpr@utas.utc.com</a></li> <li>• (was) <a href="mailto:glgecpr@goodrich.com">glgecpr@goodrich.com</a></li> </ul> <p>Paragraph 5.2.2.1</p> <ul style="list-style-type: none"> <li>• (is) ECPR #: Reserved field to be completed by Collins ECR Coordinator. COLLINS CONTACT NAME: If the ECPR is generated by a supplier, clearly indicate the name of the Collins contact that will need to notify the supplier of ECPR status or work package.</li> <li>• (was) ECPR #: Locked field to be completed by UTAS ECR Coordinator. UTAS BUYER NAME: If the ECPR is generated by a supplier, clearly indicate the name of the UTAS buyer.</li> </ul> <ul style="list-style-type: none"> <li>• (combined) Engineering Data Discrepancy* and Manufacturing Producibility*</li> <li>• (added) Technical Data - Indicate if the content of the ECPR is considered</li> </ul>	

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Revision	Date	Summary and Reasons for Changes	Originator
		<p>Technical data (YES) or not (NO)</p> <ul style="list-style-type: none"> <li>(added) Jurisdiction/Classification - Use this section to provide all classifications. See section 5.2.3.2. and 5.2.4. When applicable also provide xClass reference number associated to the above JC. See section 5.2.3.2.</li> </ul> <p>Paragraph 5.2.2.2.</p> <ul style="list-style-type: none"> <li>(is) PROBLEM – Originator:</li> <li>(was) REASON FOR REQUEST – Originator:</li> </ul> <p>Paragraph 5.3</p> <ul style="list-style-type: none"> <li>(is) 5.3 Process Flow</li> <li>(was) 5.2 Process Flow</li> </ul> <p>Paragraph 5.3.1</p> <ul style="list-style-type: none"> <li>(added) "... and is detailed in LS-LG-W-314-ENG."</li> </ul> <p>Paragraph 5.3.3, 5.3.4 and 5.3.5</p> <ul style="list-style-type: none"> <li>(rewritten for xClass)</li> </ul> <p>Paragraph 5.3.6.3</p> <ul style="list-style-type: none"> <li>(added) Materials</li> </ul> <p>Paragraph 5.3.7.1</p> <ul style="list-style-type: none"> <li>(is) The PM must review each ECPR (other than Clarification Request ECPR) for scheduling and financial impact.</li> <li>(was) The PM must review each ECPR (other than Clarification Request ECPR) for Financial Impact.</li> </ul> <p>Paragraph 5.3.8.2</p> <ul style="list-style-type: none"> <li>(is) LS-LG-P306-ENG</li> <li>(was) LG DIV ENG PR 035</li> </ul> <p>Paragraph 5.3.8.1</p> <ul style="list-style-type: none"> <li>(is) "Collins data: Engineering shall incorporate the applicable changes..."</li> <li>(was) "Design Engineering shall generate the applicable changes ..."</li> </ul> <p>Paragraph 5.3.8.2</p> <ul style="list-style-type: none"> <li>(is) Vendor/Customer data: The Design Partner (Supplier) or Customer ... Once the engineering data is completed, the supplier or customer will send back the package to Engineering via ECM or to Procurement via Content Server. Design Engineering will review the package and if acceptable, they will complete the "Design Partner" or "Customer" task, raise the ERR in accordance with LG DIV ENG PR 035 and complete their final task (Design Eng &gt; ERR).</li> <li>(was) "The Design Partner (Supplier...Once the engineering data is completed, the supplier will send back the package to Engineering via ECM or to Procurement via Content Server. Design Engineering will review the package and if acceptable, they will complete the "Design Partner" task, raise the ERR in accordance with LG DIV ENG PR 035 for the supplier's engineering package, and complete their final task (Design Eng &gt; ERR).</li> </ul> <p>Paragraph 5.3.9</p> <ul style="list-style-type: none"> <li>(added) .../Material Lead. The Collins contact identified on the ECPR will receive</li> </ul>	

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		<p>the closure notification and it is their responsibility to notify the supplier.</p> <ul style="list-style-type: none"> <li>• NOTE: Only the domestic Collins contact will receive a copy of the ECPR; all other originators will need to access the PLM system to view the document. No technical data will be sent via email outside of ECR Coordinator's location. </li></ul> <p>Paragraph 5.3.10</p> <ul style="list-style-type: none"> <li>• (is) the originator or the Collins contact as identified on the ECPR, and copies</li> <li>• (was) the originator and copies</li> </ul>	

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