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LEARNING FROM SPACE OPERATIONS: LESSONS LEARNED AS DRIVERS FOR
IMPROVEMENT

Abstract

In the frame of the ISO9001 certification, ESOC is committed to continuously improve the efficiency of the space operations service provided to all customers. One contribution to this goal comes from the modification of existing practices, by learning from unexpected results shown in the experience: this is the lessons learned process.

In ESOC a lesson learned is considered a vehicle for the modification of documents describing the methods to perform space operations, i.e. the corporate drivers of each job.

The process includes the steps of collection, presentation, analysis, disposition.

The lessons learned generation occurs at the end of major activities (such as project closure, or satellite commissioning) or at calendar intervals for continuous services. The team leader requests each member to analyse the acquired experience. Every staff has the opportunity to assess the work done with respect to the plan or to the usual practices. Any positive or negative deviation may suggest a recommendation for the future. The Quality Office provides a template and a web-based tool to uniformly collect data.

The second step consists of the public presentation of the proposed lessons learned. The attendance of management at the presentation is mandatory as they are the intended recipients of the messages to improve the organisation. The customer shall be invited too, especially in case of recommendations addressing him (so called external lessons learned).

After the presentation, a pool of domain experts nominated by the management analyses the proposed lessons meant for the improvement of the organisation. In parallel the Quality Office transfers to the customer the relevant lessons for their own independent assessment. When the expert agrees with the recommendation, he validates the lesson and escalates it to the management for disposition.

The management board decides on the validated lessons. When the recommendation is considered useful for the organisation, the management assigns an action to implement it. The outcome of the process is then a modification to either:

- Procedures in the Quality Management System
- Localised management instructions
- Training given to staff.

In conclusion the process of lessons learned in ESOC transforms valid recommendations in concrete modification of the methods to perform the day-to-day job for the benefit of the whole organisation. This process is therefore different from, but it interacts with, the improvement process from the audit results and the knowledge management process.