Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems.[3] Since the Assurance Level (AL) can have an impact on development costs, it is important to accurately evaluate the software's contribution to a hazard. The methodologies used for this evaluation should be included in the PSP. Review SRMGSA Appendices J, K, L, and M for further development assurance requirements and information.

The following topics must be addressed in the PSP:

- The activities the vendor's Software Quality Assurance (SQA) will conduct on the development to ensure compliance with RTCA DO-278A.
- The activities the PO will conduct on the vendor SQA's oversight activities.
- The activities the PO will conduct on the vendor's development to validate compliance with RTCA DO-278A.
- The Program Management Organization's process for approving vendor-submitted RTCA DO-278A documents.

Techniques described in the FAA SEM may be used in performing these reviews. For example, the N^2 analysis is a recommended way to evaluate the vendor's development processes because it highlights inputs and outputs for each process and relationships to other processes. These techniques can be used to determine whether each process is adequately defined and has transition criteria for entering the next process.

5.1.4 Identify Initial Operating Capability Safety Requirements

First-site Initial Operating Capability (IOC) occurs when the operational capability is declared ready for conditional or limited use by site personnel (i.e., after the capability is successfully installed and reviewed at the site and site acceptance testing and field familiarization are completed). The IOC requires satisfaction of operational requirements and that full logistics support and training be in place for technicians and air traffic specialists. The PSP must include the specific safety requirements that must be satisfied before the IOC can be declared.

5.1.5 Identify Post-Implementation Review Safety Requirements

A Post-Implementation Review (PIR) is an evaluation tool used to assess results of an investment program against baseline expectations 6 to 24 months after it goes into operational service. Its main objective is to determine whether the program is achieving expected performance targets (including those resulting from safety requirements) and meeting the service needs of the customers. The PIR seeks to validate the original program business case. The PIR also seeks to provide lessons learned with regard to the original program business case for application on future business cases. A PIR strategy is developed in the AMS lifecycle during the Final Investment Analysis and must include appropriate safety considerations, which should be incorporated into the PSP.

For acquisition programs, monitoring responsibilities end when all activities outlined in the SRM document monitoring plan and the safety section of the PIR Plan are complete. After the ISD, additional safety requirements may be identified via a PIR or other means that could result in design changes to the system.

3. Other acceptable alternatives to RTCA DO-278A exist for conducting software development assurance. Alternative guidance can be used with approval from the ATO Chief Safety Engineer.