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| **Line Operational Simulations (LOS), Phase III -- AC 120-35D**.  Instruction and training is based on learning objectives, behavioral observation, and assessment of performance progress and instructor or check pilot/check FE debriefing or critique (feedback). The training objectives under AQP are proficiency objectives that include both technical and CRM/TEM/RRM issues identified by a task analysis.  LOS is a training or evaluation session conducted in a simulated “line environment” setting. LOS includes LOFT, SPOT, and LOE.  **Line-Oriented Flight Training (LOFT).** Training conducted in an FSTD with a complete flightcrew using representative flight segments that contain procedures that may be expected in line operations. The LOFT includes real-time scenarios that address normal, non-normal, abnormal, or emergency procedures and provides training in CRM/TEM/RRM /TEM/RRM models. There are two types of LOFT:   1. **Qualification LOFT.** Qualification LOFT is conducted to facilitate the transition from a structured flight training environment to line operations. Qualification LOFT is required by part 121 appendix H, and must be conducted in an FFS. 2. **Recurrent LOFT.** Recurrent LOFT must be conducted in an FFS and may be used to meet recurrent flight training requirements in accordance with part 121, § 121.441.   **Special Purpose Operational Training (SPOT).** SPOT is an FSTD training session designed to address specific training objectives. These training objectives are based on both technical and Crew Resource Management (CRM), Threat and Error Management (TEM), Risk Resource Management (RRM) model requirements, and include specific training objectives to be critiqued and debriefed on *both technical and CRM/TEM/RRM* (*emphasis added*) performance. SPOT may consist of full or partial flight segments, depending on the training objectives for the flight.  **Line Operational Evaluation (LOE).** LOE means a simulated line environment, the scenario content of which is designed to test integrating technical and CRM/TEM/RRM skills.  This LOS evaluator job aid is designed, in part, from early research (from Wilhelm, Butler, & Connelly, 1992) on this subject to rate or otherwise attempt to measure the effectiveness of LOS implementation by instructor/evaluators in the following area(s):   1. LOS Design: 2. Briefing: 3. Instructor’s administration of the simulation: 4. Debriefing: 5. Crew Evaluations: 6. Overall evaluations:   The 5-point scale is a subjective measure of grading the above referenced LOS area with:   1. Unacceptable - neither adequate nor effective 2. Minimally Acceptable – required FAA debrief 3. Acceptable - average 4. Acceptable – good but requires improvement 5. Acceptable - highly effective.   **Caution** for potential central grading tendencies of these area(s)(i.e. grading an average “3” )  **Comment field** provided to document and further describe “1” or “5” responses. | | | | | | | | |
| A. | LOS Design (applicable to initial review and approval process) | 1 | 2 | 3 | 4 | 5 | Comments |
|  | Workload level appropriateness for training |  |  |  |  |  |  |
|  | Time pressure generated (*i.e. stressor or time factor to be managed)* |  |  |  |  |  |  |
|  | ATC/Company/Flight Attendant communication(s) |  |  |  |  |  |  |
|  | Checklist activity *(i.e. procedural compliance)* |  |  |  |  |  |  |
|  | Creative problem solving required |  |  |  |  |  |  |
|  | Availability of preflight planning documents *(i.e. duplicates preflight and dispatch process)* |  |  |  |  |  |  |
|  | Appropriateness of preflight activities *(i.e. flight deck setup, logbook entries, W&B calculations, MEL review, weather, etc.)* |  |  |  |  |  |  |
|  | Scenario value for CRM/TEM/RRM modeling |  |  |  |  |  |  |
|  | Scenario value for technical training |  |  |  |  |  |  |
|  | Scenario designed based upon actual events reported in certificate holders’ VSP ( *and/or relevant industry operational challenge areas.)* |  |  |  |  |  |  |
| B. | Briefing | 1 | 2 | 3 | 4 | 5 | Comments |
| 11. | Orientation to LOS training *(to include training objectives, purpose of LOS, observer/non-flightcrew member IE roles, information about the environmental setting, etc.)* |  |  |  |  |  |  |
| 12. | Instructor enthusiasm for LOS *(thorough, interesting and prepares crew for effective training experience)* |  |  |  |  |  |  |
| 13. | Description of ATC/Company/Flight Attendant communication(s) |  |  |  |  |  |  |
| 14. | Integration of crew into briefing *(agenda setting, outline expectations and establish a team concept)* |  |  |  |  |  |  |
| 15. | Review of the CRM/TEM/RRM /TEM/RRM component(s) |  |  |  |  |  |  |
| 16. | Overall quality (*i.e. effectiveness*) of the briefing |  |  |  |  |  |  |
| C. | LOS facilitator’s administration of the simulation | 1 | 2 | 3 | 4 | 5 | Comments |
| 17. | Simulator operation (*i.e. knowledge and skillful use of IOS, etc.)* |  |  |  |  |  |  |
| 18. | Scenario support in I/E roles as ATC, inflight, company, or maintenance communications |  |  |  |  |  |  |
| 19. | Adherence to published script |  |  |  |  |  |  |
| 20. | Realism of the scenario maintained and run to its logical conclusion uninterrupted |  |  |  |  |  |  |
| 21. | Overall evaluation of simulation experience to meet training objectives |  |  |  |  |  |  |

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| D. | Debriefing | 1 | 2 | 3 | 4 | 5 | Comments |
| 22. | Establishment of debriefing rules |  |  |  |  |  |  |
| 23. | Keeping focus of crew on self-appraisal *(individual self-critique and self-examination)* |  |  |  |  |  |  |
| 24. | Comprehensiveness of debriefing |  |  |  |  |  |  |
| 25. | Mix of positive and negative critique |  |  |  |  |  |  |
| 26. | Integration of technical and CRM/TEM/RRM |  |  |  |  |  |  |
| 27. | Encourage participation of all crewmembers |  |  |  |  |  |  |
| 28. | Use of behavioral markers and CRM/TEM/RRM skills |  |  |  |  |  |  |
| 29. | Summarization of key learning points at end of debrief related to crew performance improvement, emphasis areas, or other recommendations, etc. |  |  |  |  |  |  |
| 30. | Linkage to line operations |  |  |  |  |  |  |
| 31. | Overall effectiveness of debrief |  |  |  |  |  |  |
| E. | Crew Evaluations of CRM/TEM/RRM | 1 | 2 | 3 | 4 | 5 | Comments |
| 32. | Crew knowledge of subject area or related process during debriefing |  |  |  |  |  |  |
| 33. | Crew performance on the LOS *(i.e. demonstrated behaviors of applicable model)* |  |  |  |  |  |  |
| 34. | CRM/TEM/RRM learning expressed by crew |  |  |  |  |  |  |
| 35. | Avoidance of crew-imposed workload |  |  |  |  |  |  |
| F. | Overall evaluation by Observer | 1 | 2 | 3 | 4 | 5 | Comments |
| 36. | I/E’s conduct of entire LOS |  |  |  |  |  |  |
| 37. | I/E’s ability to identify both individual and crew flightcrew member performance deficiencies and/or exemplary performance |  |  |  |  |  |  |
| 38. | Session’s value for crew coordination training |  |  |  |  |  |  |
| 39. | Session’s value for technical training |  |  |  |  |  |  |
| 40. | Quality *(effectiveness)* of the overall training experience |  |  |  |  |  |  |