Air Carrier Training Aviation Rulemaking Committee (ACT ARC)

Recommendation 16-1: Scenario-Enhanced Recurrent (SER) Training and Checking for 135 Operators

I.   Submission

The recommendations below were submitted by the Air Carrier & Contract Training Workgroup (AC&CT WG)[1] for consideration by the Air Carrier Training Aviation Rulemaking Committee (ACT ARC) Steering Committee at F2F-8. The ACT ARC Steering Committee adopted the recommendations with unanimous consent, and they are submitted to the Associate Administrator for Aviation Safety (AVS-1) as ACT ARC Recommendation 16-1.

II.   Statement of the Problem

The objective of recurrent training under Title 14 of the Code of Federal Regulations (14 CFR) Part 135 is to ensure that crewmembers continue to be knowledgeable of, and proficient in, their specific aircraft type and duty assignment.   (Order 8900.1, Volume 3, Chapter 19, Section 10, Paragraph 3-1337.) Under 135.351(c), "recurrent flight training for pilots must include, at least, flight training in the maneuvers or procedures in this subpart, except that satisfactory completion of the check required by §135.293 within the preceding 12 calendar months may be substituted for recurrent flight training." (*See also*, Order 8900.1, Volume 3, Chapter 19, Section 10, Paragraph 3-1343.)

Application of the regulatory framework through current guidance has created a "practice, practice, check" footprint in a rehearsed environment that affords minimal opportunity for variation and very little allowance for the crewmember to apply knowledge and skills to problems or real world scenarios. Current guidance is applied in a manner that requires the proficiency/competency check to be conducted in a "single session." (Order 8900.1, Volume 3, Chapter 19, Section 7, Paragraph 3-1282.) In order to complete all of the required 14 CFR Part 135 proficiency/competency check events during a single session, the check airman generally uses a checklist approach to completing the events in isolation without sufficient time to complete them in an operational setting or practical context. (*See* Attachment A: Part 135 Check Requirements Matrix.) Over time, recurrent training can become a rote exercise for the crewmember, and 142 training centers can be limited in their ability to meet an operator's special requests without significantly increasing the expense of the training provided.

In order to address the long-term component of its scope of work, the AC&CT WG concentrated on the flexibility afforded by 135.351(c) with regard to recurrent flight training. By limiting the focus to recurrent flight training and checking, the AC&CT WG was able to develop a package of recommendations that integrates a scenario-based approach to develop a staged check footprint to improve the overall quality of the crewmember's experience and allow the check airman to evaluate the crewmember's skills in a realistic operating environment.

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[1] The AC&CT WG is comprised of ACT ARC Steering Committee Members including 135 operators, 142 training centers, and membership organizations/industry associations. The AC&CT WG also sought input from industry subject matter experts (SME) in developing the SER concept and sample curriculum modules.

Rather than start with rulemaking recommendations, the AC&CT WG concentrated on enhancements to the current recurrent training paradigm that can be achieved through guidance.[2]

Flightcrew Member Training Hours Requirement Review ARC Recommendations

In 2011, the Flightcrew Member Training Hours Requirement Review Aviation Rulemaking Committee (THRR ARC) made a series of recommendations about the best methods to reliably evaluate a pilot's mastery of aircraft systems, maneuvers, procedures, takeoffs and landings and crew coordination including: (i) increased use of Flight Simulation Training Devices (FSTD); and (ii) scenario-based evaluation.[3] In support of these recommendations, the THRR ARC suggested that better pilot performance would result from realistic training and validation of pilot skills. In reviewing the THRR ARC report, the AC&CT WG concurred with the supporting rationale for these recommendations, noting pilot validation events should be accomplished in "line-oriented" events in flight simulators. In working their assigned long-term tasking, the AC&CT WG looked for ways the events could be structured to ensure all pilot skill tasks are validated, coupled with a method by which the tasks validated could be flexible. This flexibility should include the ability to validate the training over multiple sessions rather than one stand-alone "check ride" event.

The THRR ARC also recommended the use of scenario-based training for 135 operators, which incorporates standard operating procedures (SOP), normal, abnormal and emergency checklists, aircraft performance, crew resource management (CRM), and threat and error management (TEM) into situations a pilot is likely to encounter during actual revenue operations. The AC&CT WG supported the THRR ARC suggestions that scenarios should contain operationally relevant real world situations used to focus the crewmembers on a particular subject matter.

In developing the scenario-enhanced recurrent (SER) training and checking concept, the AC&CT WG also studied a number of proven industry techniques that would allow 135 operators to conduct training with a path to validating competency of the crewmember under the current regulatory framework (without requiring changes to 14 CFR Part 135 or 142).

Description of SER Training and Checking Concept

Under the Aircraft-Specific Part 135 Standardized Curriculum Model (or if the operator elects to use SER training and checking in the operator's custom training program), each recurrent training curriculum will include aircraft-specific ground training that incorporates the appropriate content and complements SER training and checking.

Each multiple day scenario consists of staged training/checking and must be constructed to ensure that both pilots complete all required events. (Each day is equivalent to a sim session under the traditional 142 training center model.) Scenarios should be scaled to the complexity of the aircraft and the operating environment (when appropriate). Each scenario will include any required training elements in the curriculum (i.e., special emphasis items added by the Training Standards Board) and the opportunity for retraining/re-checking any events that were unsatisfactory.

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[2] The AC&CT WG studied current training methodologies used by Part 121 operators and received briefings on instructional systems development (ISD) principles, job task analysis (JTA) methods, and advanced qualification program (AQP) training, which informed the development of the scenario-enhanced recurrent (SER) training and checking concept. However, the AC&CT WG does not suggest that the SER training and checking concept is equivalent to AQP. Rather, it borrows from AQP-related ideas.

[3] Flightcrew Member Training Hours Requirement Review Aviation Rulemaking Committee: *Report from THRR ARC* (ARC 209), May 23, 2011 at pg. 14.

(Note: The Training Standards Board is the body previously described as the team of subject matter experts introduced in ACT ARC Recommendation 15-9 that includes 135 operator(s), 142 training center(s), the aircraft manufacturer, and the FAA. The Training Standards Board is responsible for developing and continually improving the Aircraft-Specific Part 135 Standardized Curriculum for that aircraft type.)

During the course of each designated flight leg throughout the staged check, the check airman will evaluate any required events. At the conclusion of each day, the check airman will conduct a thorough debrief with the pilots to ensure each pilot understands any events that were unsatisfactory.

SER training and checking enhances the recurrent training experience for the crewmember. Instead of artificially completing a disconnected series of tasks, the crewmember will be checked on a series of tasks in the context of a real operating environment. While it is important that crewmembers learn how to operate systems in advanced aircraft and develop the judgment to operate safely in the modern air traffic control system, it is also critical that every pilot develop that innate sense of what the airplane is doing, how much energy it has and what the pilot can or cannot accomplish with that energy. The SER training and checking concept is designed to achieve these goals within the current regulatory framework.

III. & IV.   Recommendations & Rationale

The ACT ARC submits the following recommendations on the development and structure of scenario-enhanced recurrent (SER) training and checking for 135 operators for FAA consideration.

(a)   Scenario-Enhanced Recurrent (SER) Training and Checking Concept

   The ACT ARC recommends the FAA develop guidance for industry stakeholders (135 operators and 142 training centers), with accompanying guidance for FAA personnel (e.g., Principal Operations Inspectors (POI), Training Center Program Managers (TCPM)) allowing 135 operators to incorporate scenario-enhanced recurrent (SER) training and checking in the 135 operator's training program/Aircraft-Specific 135 Standardized Curriculum.

Rationale:

Under the SER training and checking concept, the operator (or Training Standards Board) uses a scenario-based approach to conduct a staged check. The crewmembers apply and correlate knowledge and skills to the situation presented.

The SER training and checking concept was developed by the AC&CT WG in order to enhance the traditional maneuver-based training model used by 142 training centers to deliver recurrent training/checking to Part 135 operators, as well as allow 135 operators with a custom training program to incorporate a scenario-based approach to flight training/qualification modules. With the limitations in current guidance, recurrent training loses value over time as the pilot repeats the same rote events during each recurrent training course. In most cases, a company/contract check airman conducts a stand-alone proficiency/competency check at the end of 2-3 days of recurrent training. The scenario-based approach used in creating the staged check footprint will add significant value to the pilot's recurrent training experience, as well as allow the check airman to assess the pilot's skills in a more meaningful way (and in a realistic operating environment).

The SER training and checking concept further strengthens the Aircraft-Specific Part 135 Standardized Curriculum Model previously proposed by the ACT ARC by adding the ability for the 142 training center to assess the crewmember's abilities and collect data across multiple operators who are using the same checklists, SOPs, etc. Supported by the crew pairing philosophy under the Aircraft-Specific Part 135 Standardized Curriculum Model, both pilots operate the airplane the same way. Now the pilots also "fly as they train"/ "train as they fly" so assessing the skill level on each event will result in valuable data that can be used to further improve and enhance the Standardized Curriculum. For 135 operators with a custom training program, the ability to incorporate scenarios the pilot will deal with in an operational environment will significantly improve the quality of training. This value-added approach is consistent with safety management system (SMS) principles and industry best practices used by 121 operators.

(b)   Development of SER Training and Checking

The ACT ARC recommends the FAA develop guidance for industry stakeholders (135 operators and 142 training centers) describing the methodology to develop and integrate SER training and checking scenarios into 135 operator training programs, which includes:

- Analysis of airports used by 135 operators and the criteria associated with added complexity in certain airfield operating environments (in order to ensure 14 CFR Part 60 approved full flight simulator (FFS) modeling is available). (*See* Attachment B: General Aviation/Business Aviation Airport Data)

- Review of multiple data sources, including event reports, safety data, accident/incident reports, and business aviation identified threats.

- Validation of all required checking events under 14 CFR Part 135.293(a)(2),(3) & (b)/135.297 are addressed during the scenarios. (*See* Attachment A: Part 135 Check Requirements Matrix)

Further, the ACT ARC recommends the FAA develop accompanying inspector handbook guidance for FAA personnel (e.g., Training Standards Board, 135 POIs, 142 TCPMs) with appropriate job aids to evaluate the use of SER training and checking as a component of the Aircraft-Specific 135 Standardized Curriculum, or as a component of a 135 operator Custom Training Program.

Rationale:

The methodology for developing scenarios should be integrated into guidance previously recommended by the ACT ARC for the development of an Aircraft-Specific Part 135 Standardized Curriculum by the Training Standards Board, as well as similar guidance for 135 operators who want to incorporate SER training and checking into a custom training program. (Reference: ACT ARC Recommendation 15-9.)   The guidance will need to use standardized terminology (including definitions of terms not currently defined in 14 CFR) supporting the SER training and checking concept.

The AC&CT WG also structured these recommendations to ensure SER training and checking would be available under the Standardized Curriculum Model where 135 training/checking is delivered by a 142 training center, as well as to 135 operators with a custom training program (who conduct training/checking in house).

The Training Standards Board would use the guidance to develop multiple scenarios that would become part of the Standardized Curriculum for that aircraft type. They would use general aviation/business airport data to select airports that meet the operating environment criteria important to ensure the objectives of each flight leg in the scenario are met. The Training Standards Board would also determine whether a pre-scenario training session is required where special emphasis items are identified. Each scenario included in the standardized curriculum would also encompass a number of operating environments to allow the check airman to vary the training/checking experience for the crewmembers (e.g., high & hot, uncontrolled airport, high density airport (traffic), short field airport, winter operations, international flights (if requested by operator), extended overwater operations (if requested by operator). Multiple scenarios also prevent the likelihood of repetition of the exact same recurrent "practice, practice, check" footprint that has become the practical consequence of today's guidance paradigm.

In the case of an operator custom training program, SMS data/reports will likely be the primary source of data to support revisions to the training program. In the change management process for the Aircraft-Specific Part 135 Standardized Curriculum, multiple sources will be used by the Training Standards Board to review the standardized curriculum including data collected by 142 training centers, as well as data from reports submitted through several voluntary programs including: FOQA, LOSA, ASIAS, ASAP, SOQA, and ASRS.

In developing the SER training and checking concept described in these recommendations, the AC&CT WG also used the "whole crew concept" described in the THRR ARC Report, which requires qualified crewmembers occupy each seat during the training/checking event. When considering potential prerequisites for the SER training and checking concept, the AC&CT WG determined that each scenario would be built for a full crew: PIC / PIC or PIC / SIC. In addition both crewmembers must be current in order to enroll in a SER curriculum. (Note: single pilot checking is not authorized under the SER concept.) The members also suggest the FAA consider requiring crewmembers enrolled in the PIC curriculum to meet the minimums in 135.225(e). The limitations a high minimums PIC would add a complexity to developing the scenario that is difficult to administer and document.

Especially in the case of SER training and checking included in an Aircraft-Specific Part 135 Standardized Curriculum, the members suggest the guidance include multiple examples of how to build a scenario so the operator/Training Standards Board can determine how best to incorporate the required checking events. In constructing the scenario, the operator/Training Standards Board should consider the best way to incorporate required training elements without compromising the sterile checking environment in order to preserve the value of data collected while the check airman is evaluating critical events. In addition, individual flight legs will be constructed to ensure that there is clear delineation between training and checking.

(c)   Components of the SER Training and Checking Scenario

The ACT ARC recommends that each SER training and checking scenario (multiple-day trip) include the following components:

- Trip Sheet/Scenario Briefing provided in advance of the scenario (*See* <u>Attachment C</u>: Sample 142 Trip Sheet for Scenario)

- Multiple checking modules (flight legs that include the following events: pre-departure/ground operations, takeoff, climb, cruise, descent/hold, approach, landing, and after landing operations) with options for variation (*See* <u>Attachment D</u>: Sample Scenario)

- Designated training module(s), if required

- Module for retraining/re-checking any unsatisfactory events

- All required proficiency/competency check requirements under 135.293(a)(2)(3)&(b) and 135.297 (*See* <u>Attachment A</u>: Part 135 Check Requirements Matrix)

Rationale:

In order to make each flight leg in the scenario as realistic as possible, the AC&CT WG felt that the pilots should receive a Trip Sheet/Scenario Briefing at the end of ground school providing them with the information about the flight legs included in the scenario in the same manner the pilots would receive a trip sheet (or equivalent information) from the operator prior to departing for a multi-day trip.
In the case of 135 operators receiving SER training and checking as part of an Aircraft-Specific 135 Standardized Curriculum, the Trip Sheet will be somewhat generic but still include the relevant information to assess the pilot's skills in dealing with the information provided. In the case of a 135 operator using SER training and checking as part of a custom training program, the operator could use an actual Trip Sheet to simulate a "real" trip.

Each Aircraft-Specific 135 Standardized Curriculum would include multiple scenarios in order to give the check airman some ability to tailor the scenario to pilot skill and/or operating environment. The guidance should include multiple examples so the operator/Training Standards Board can determine how best to incorporate the required checking events. In constructing the scenario, the operator/Training Standards Board should consider the best way to incorporate required training elements without compromising the sterile checking environment in order to preserve the value of data collected while the check airman is evaluating critical events. In addition, individual flight legs will be constructed to ensure that there is clear delineation between training and checking. Where special emphasis items are identified by the Training Standards Board, training flight leg(s) would be included in the scenario, and each scenario will include the retraining/re-checking flight leg to address any unsatisfactory events during the staged check. The AC&CT WG members wanted to preserve the value to data collected on events performed during the staged check, which can be achieved with a clear delineation of the purpose of each flight leg.

(d)   Staged Check Footprint

The ACT ARC recommends the FAA include detailed guidance defining the staged check footprint. During a staged check, the crewmember will receive credit for and complete all required proficiency/competency check requirements under 135.293(a)(2)(3) &(b)/135.297, as applicable to the duty position. The check will be complete at the end of the multiple-day scenario and the result will be reported to the crewmember/operator as satisfactory or unsatisfactory. The ACT ARC suggests the following guidelines for determining whether the outcome of the staged check is satisfactory or unsatisfactory:

- If in the judgment of the check airman, the crewmember does not meet the standards for any event, the crewmember fails that event.

- Each event can be checked one additional time by the end of the scenario, after retraining occurs.

- Once the event is assessed as unsatisfactory by the check airman, the crewmember will not be checked on the event again until he or she has completed retraining at which time the event can be re-checked.

- A maximum of three events can be retrained/re-checked during the course of the scenario.

- The Training Standards Board may add a critical event(s) to the Aircraft-Specific Part 135 Standardized Curriculum. Failure of a defined critical event may result in an immediate unsatisfactory result on the staged check.

- As soon as the staged check becomes unsatisfactory, the crewmember will be transitioned from SER training and checking to traditional maneuver-based recurrent training.

- The crewmember will have to complete a stand-alone 135 check at the end of the traditional maneuver-based recurrent training in order to successfully complete the recurrent training curriculum.

Rationale:

During the course of the staged check, the check airman, will grade all required events as the flight(s) progress each day. In order to ensure the staged check experience is as valuable as possible for the crewmembers, the crewmembers will conduct structured briefings at the beginning of each day and detailed debriefings at the end of each day (sim session) to make sure each crewmember is made fully aware of the events successfully completed. The AC&CT WG also wanted to address potential concerns associated with the "progressive" checking model used by Part 91 operators, where there is little guidance regarding how many times an event can be repeated before it is evaluated as unsatisfactory. The staged check is administered against a defined set of standards that will preserve the sterile checking environment and eliminate any concerns regarding "coaching" during required checking events. Since the staged check footprint will include structured briefing/debriefing for the crewmembers, the overall experience will be more valuable for the crewmembers, and they will often have the opportunity to conduct the event in multiple realistic operating situations.

(e)   Check Airman/Evaluator Training

The ACT ARC recommends that training for check airmen/evaluators who conduct SER training and checking need to receive additional training in the following areas:

- Validation of assigned crew pairing

- Retraining/re-checking an unsatisfactory event during the scenario

- Criteria for assessing the crewmember during the staged check on each event using the standardized multi-point grading system

- Staged check footprint

- Structured briefing/debriefing

- Methods for varying the scenario (using options) within the approved criteria

- Documentation of the staged check event (e.g., result for each event, retraining for an event)

Rationale:

The AC&CT WG supports earlier assertions by the THRR ARC related to instructor and evaluator training, noting that effective validation and evaluation of pilot skills can only be accomplished by individuals who are specifically trained to conduct and document the results of the staged check. The members suggest that 135 operators with custom training programs (and 142 training centers delivering the Aircraft-Specific 135 Standardized Curriculum) should use ISD principles to develop (and enhance) check airman/evaluator training. Under 14 CFR Part 135, check airman training is only required as a one-time event, but training center training (TCE) is an annual training requirement under 14 CFR Part 142. As SER training and checking is introduced, annual recurrent training for check airman may be more appropriate. To ensure consistency in evaluating and recording the results of an evaluation, the AC&CT WG recommends check airmen receive specific training on how to record a crewmember's performance. Check airman training should also include instructor calibration to provide for consistent grading across check airmen.

Data collected through the SER grading system will be the most important tool used to continually improve the standardized curriculum for each aircraft type.

(f)   Transition Process

The ACT ARC recommends the FAA require any curriculum including SER training and checking to also address a transition process under which an unsuccessful crewmember will be removed from SER training and checking and transitioned to maneuver-based training followed by a stand-alone 135 check.

Rationale:

Under 135.301(b), "if the pilot being checked is unable to demonstrate satisfactory performance to the person conducting the check, the certificate holder may not use the pilot, nor may the pilot serve, as a flight crewmember in operations under this part until the pilot has satisfactorily completed the check." Current guidance further suggests that "a flightcrew member who fails a required check must be entered into requalification training. The requalification training segment must consist of at least that remedial training required to restore the flightcrew member's

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competence in the failed events. Training may consist of as little as a detailed debriefing, or it may need to be very extensive. Additional training should be given to strengthen the flightcrew member's overall performance. The reasons for the disqualification and the training given must be entered in the flightcrew member's records." (Order 8900.1, Volume 3, Chapter 19, Section 11, Paragraph 3-1368.)

In developing guidance to support the SER training and checking concept, the AC&CT WG suggests the FAA ensure the necessary transition process is specifically distinguished from requalification training, as defined in current guidance. Under the SER training and checking transition process, the AC&CT WG suggests the FAA define the transition status and set forth the requirements associated with documenting the transition in the crewmember's records (to include the unsatisfactory result of the staged check, retraining, and the result of the stand-alone 135 "traditional" check). In all cases, the crewmember must complete the stand-alone 135 check with a satisfactory result before the crewmember can serve in 135 operations.

(g)   Data Collection

The ACT ARC recommends that SER training and checking incorporated in the Aircraft-Specific Part 135 Standardized Curriculum include a standardized multi-point grading system to enable 142 centers to collect data on the skill level of each crewmember on individual events during the staged check conducted during the scenario. The de-identified data will be provided to the Training Standards Board for review as part of the change management process for revising/updating and continuously improving the standardized curriculum.

Rationale:

Current grading practices typically rate a crewmember as either Satisfactory (S) or as Unsatisfactory (U) during a proficiency check. The THRR ARC found this practice may not tell the entire story of a crewmember's proficiency or provide enough information to measure the effectiveness of a training program. While rulemaking would be required to implement the recommendations suggested by the THRR ARC, the AC&CT WG concurred with many of the ideas presented in the THRR ARC report.

ACT ARC Recommendation 15-9 includes guidance for development of the standardized curriculum with process by which a curriculum will be revised based on SMS change management system principles. The guidance will specify certain external inputs that may drive changes, as well as a risk analysis process to assess the significance of the change (and urgency of a revision to the curriculum). The guidance should also address how stakeholder data and feedback will be used to revise the curriculum. The change management process should be transparent and track all regulatory changes, and other external and internal inputs with a risk-based approach employed to determine when revisions are published outside the regular interval.

The Aircraft-Specific Part 135 Standardized Curriculum Model will enhance operator/training center safety programs and create a feedback loop that allows 135 operators/142 training centers to partner in an effort to systematically collect meaningful data that can be used to continually review and improve the standardized curriculum, as well as target areas of emphasis to enhance the quality of training provided. The data collected during SER checking will significantly inform changes and improvements to the standardized curriculum.

(h)   Rulemaking

Further to recommendations (a) – (g) above, the ACT ARC recommends the FAA pursue rulemaking in order to implement the SER training and checking concept.

Rationale:

In developing this package of recommendations, the AC&CT WG acknowledged that the SER training and checking concept can be implemented (and integrated into the Aircraft-Specific Part 135 Standardized Curriculum Model) solely through the development of new guidance material and the revision of existing guidance documents. However, if data collected through SER training and checking supports a review of checking intervals under Part 135 for certain events, the AC&CT WG supports FAA review of rulemaking to integrate this model formally under Part 135 in the future. The AC&CT WG emphasizes that rulemaking is not required to initiate or otherwise implement the SER training and checking concept, and sub-parts (a) – (g) of this recommendation can be implemented regardless of whether rulemaking is initiated under ACT ARC Recommendation 16-1.

Recommendation 16-1 Attachments:

The following attachments are included to support these recommendations:

- Attachment A: Part 135 Check Requirements Matrix
- Attachment B: General Aviation/Business Aviation Airport Data
- Attachment C: Sample Trip Sheet for a Scenario
- Attachment D: Sample Scenario

V. Background Information

AC&CT WG Scope of Work:

These recommendations address the long-term component of the AC&CT WG Scope of Work:

> Recommend innovative strategies to integrate evidence and scenario-based approaches into the training, checking, and qualification modules of operator training programs.

(Note: The short-term component of the AC&CT Scope of Work was addressed by ACT ARC Recommendations 15-1, 15-2 & 15-9.)

ACT ARC Initiatives:

These recommendations generally address the following Steering Committee Initiatives as they apply to training conducted under 14 CFR Part 135:

- Initiative #21: Increase use of Flight Simulation Training Devices (FSTD) in evaluating pilots of commercial operators, using scenario-based evaluation.

- Initiative #38: Request that the FAA place more emphasis on the "train to proficiency" standard as a superior alternative to hard hour requirements for training programs and training segments. We further propose and request that this emphasis be reflected in rulemaking and guidance dealing with structure of training programs across all current operating rules to which it may apply.

Source Report:

Flightcrew Member Training Hours Requirement Review Aviation Rulemaking Committee: *Report from THRR ARC* (ARC 209), May 23, 2011 at pgs. 7-9 & 14-15. (*See* Recommendations 4.1, 4.4 & 4.5)

Note: The AC&CT WG was originally assigned Initiative #32 regarding improving the guidance for 14 CFR 61.58 PIC checks. The Steering Committee determined that Part 61 rulemaking in this context is outside the scope of the ACT ARC. However, the concepts outlined in this recommendation could be scaled and applied to Part 91 operator training and checking events conducted under Part 61. The AC&CT WG recommends the ACT ARC submit these recommendations (with supporting rationale and attachments) to the FAA with the suggestion to share this information with the General Aviation and Commercial Division (AFS-800), as well as any relevant workgroups (including the Airman Certification System Working Group (ACS WG)) for review and consideration.

ATTACHMENT A: PART 135 CHECK REQUIREMENTS MATRIX
(Pilot in Command / multi engine airplane)

Event	Source Requirement	Standard for Check	Notes
WRITTEN OR ORAL TEST			
14 CFR 135.297			
emergency procedures	135.297(c)		
engine operation	135.297(c)		
fuel and lubrication systems	135.297(c)		
power settings	135.297(c)		
stall speeds	135.297(c)		
best engine-out speed	135.297(c)		
propeller and supercharger operations	135.297(c)		
hydraulic, mechanical, and electrical systems, as appropriate	135.297(c)		
14 CFR 135.293			
aircraft powerplant	135.293(a)(2) ATP PTS I.A.		
major components and systems	135.293(a)(2) ATP PTS I.A.		
major appliances	135.293(a)(2) ATP PTS I.A.		
performance and operating limitations	135.293(a)(2) ATP PTS I.B.		
standard and emergency operating procedures	135.293(a)(2)		
contents of the approved Aircraft Flight Manual or equivalent, as applicable	135.293(a)(2)		
method of determining compliance with weight and balance limitations for takeoff, landing and en route operations	135.293(a)(3)		
GROUND OPERATIONS			
Preflight inspection	ATP PTS II.A.	ATP PTS	#
Start procedures	ATP PTS II.B.	ATP PTS	#
Taxiing/runway operations	ATP PTS II.C.	ATP PTS	#
Pretakeoff checks	ATP PTS II.F.	ATP PTS	#
TAKEOFF AND DEPARTURES			
Normal	ATP PTS III.A.	ATP PTS	
Crosswind	ATP PTS III.A.	ATP PTS	1
Instrument	ATP PTS III.E.	ATP PTS	2
With powerplant failure	ATP PTS III.F.	ATP PTS	ME Only
Rejected takeoff	ATP PTS III.G.	ATP PTS	3, ME Only
Only Area departure	ATP PTS III.H.	ATP PTS	
IN-FLIGHT MANEUVERS			
Steep turns	ATP PTS IV.A.	ATP PTS	
Stall prevention (approaches to stalls)	ATP PTS IV.B.	ATP PTS	10
Powerplant failure	ATP PTS IV.C. (SE) ATP PTS IV.D.	ATP PTS	

ATTACHMENT A: PART 135 CHECK REQUIREMENTS MATRIX
(Pilot in Command / multi engine airplane)

Event	Source Requirement	Standard for Check	Notes
Specfic flight characteristics?	ATP PTS IV.E.	ATP PTS	
INSTRUMENT PROCEDURES			
Area arrival	ATP PTS V.A.	ATP PTS	
Holding	ATP PTS V.B.	ATP PTS	
Normal ILS approach	ATP PTS V.C.	ATP PTS	4, 8
Engine‑out ILS	ATP PTS V.C.	ATP PTS	8, ME Only
Coupled approach		published minimums for that procedure	4, 8
Non-precision approach (NPA)	ATP PTS V.D.	published minimums for that procedure	11
Second NPA	135.297(b) ATP PTS V.D.	published minimums for that procedure	11
Missed approach from an ILS	135.297(b) ATP PTS V.F.	published minimums for that procedure	
Second missed approach	135.297(b) ATP PTS V.F.	published minimums for that procedure	
Circling approach	135.297(b) ATP PTS V.E.	published minimums for that procedure	13
LANDINGS & APPROACHES TO LANDINGS			
Normal	ATP PTS VI.A.	ATP PTS	12
Crosswind	ATP PTS VI.A.	ATP PTS	5
Landing from an ILS	ATP PTS VI.B.	ATP PTS	
Landing with engine out	ATP PTS VI.C.	ATP PTS	ME Only
Circling approach	ATP PTS VI.D.	ATP PTS	13
Rejected landing	ATP PTS VI.H.	ATP PTS	
Only No Flap approach	ATP PTS VI.I.	ATP PTS	6, 14
NON-NORMAL & EMERGENCY PROCEDURES			
System malfunction	ATP PTS VIII.A.	ATP PTS	#
Maneuver by partial panel	N/A		9
Unusual attitude recovery	ATP PTS IV.F.	ATP PTS	
Instrument approach	N/A		7

ATTACHMENT A: PART 135 CHECK REQUIREMENTS MATRIX
(Second in Command / multi engine airplane)

Event	Source Requirement	Standard for Check	Notes
WRITTEN OR ORAL TEST			
14 CFR 135.293			
aircraft powerplant	135.293(a)(2) ATP PTS I.A.		
major components and systems	135.293(a)(2) ATP PTS I.A.		
major appliances	135.293(a)(2) ATP PTS I.A.		
performance and operating limitations	135.293(a)(2) ATP PTS I.B.		
standard and emergency operating procedures	135.293(a)(2)		
contents of the approved Aircraft Flight Manual or equivalent, as applicable	135.293(a)(2)		
method of determining compliance with weight and balance limitations for takeoff, landing and en route operations	135.293(a)(3)		
GROUND OPERATIONS			
Preflight inspection	ATP PTS II.A.	ATP PTS	#
Start procedures	ATP PTS II.B.	ATP PTS	#
Taxiing/runway operations	ATP PTS II.C.	ATP PTS	#
Pretakeoff checks	ATP PTS II.F.	ATP PTS	#
TAKEOFF AND DEPARTURES			
Normal	ATP PTS III.A.	ATP PTS	
Crosswind	ATP PTS III.A.	ATP PTS	1
Instrument	N/A		2
With powerplant failure	ATP PTS III.F.	ATP PTS	ME Only
Rejected takeoff	N/A		3, ME Only
Only Area departure	N/A		
IN-FLIGHT MANEUVERS			
Steep turns	N/A		
Stall prevention (approaches to stalls)	N/A		10
Powerplant failure	N/A		
Specfic flight characteristics	N/A		
INSTRUMENT PROCEDURES			
Area arrival	N/A		
Holding	N/A		
Normal ILS approach	N/A		
Engine-out ILS	N/A		
Coupled approach	N/A		
Non-precision approach (NPA)	N/A		
Second NPA	N/A		
Missed approach from an ILS	N/A		
Second missed approach	N/A		
Circling approach	N/A		
LANDINGS & APPROACHES TO LANDINGS			
Normal	ATP PTS VI.A.	ATP PTS	12
Crosswind	ATP PTS VI.A.	ATP PTS	5
Landing from an ILS	N/A		

ATTACHMENT A: PART 135 CHECK REQUIREMENTS MATRIX
(Second in Command / multi engine airplane)

Event	Source Requirement	Standard for Check	Notes
Landing with engine out	ATP PTS VI.C.	ATP PTS	ME Only
Circling approach	N/A		
Rejected landing	N/A		
Only No Flap approach	N/A		
NON-NORMAL & EMERGENCY PROCEDURES			
System malfunction	ATP PTS VIII.A.	ATP PTS	#
Maneuver by partial panel	N/A		
Unusual attitude recovery	ATP PTS IV.F.	ATP PTS	
Instrument approach	N/A		

References in the Notes column correspond to footnotes from Order 8900.1, Vol 3, Ch 19, Sec 7, Table 3-70.

<u>Notes</u>:

Both PIC and SIC may be evaluated performing their assigned duties in these events simultaneously when the check pilot is not seated at the controls.

* May be waived at the discretion of the principal operations inspector (POI) and the check pilot when the check is not simultaneously conducted for certification. (See Volume 5, Chapter 3, Section 2.)

** May be waived at the discretion of the POI and the check pilot when the check is not conducted in conjunction with initial new-hire or initial equipment training.

1 See Volume 5, Chapter 3, Section 2.

2 See Volume 5, Chapter 3, Section 2.

3 See Volume 5, Chapter 3, Section 2.

4 The applicant must demonstrate the ability to use all installed equipment including autopilots and flight directors (FD). In multiengine airplanes, an engine-out instrument landing system (ILS) may be substituted for the normal ILS at the option of the inspector or check pilot administering the check.

5 See Volume 5, Chapter 3, Section 2.

6 See Volume 5, Chapter 3, Section 2.

7 POIs must ensure applicants accomplish this event in an aircraft the operator uses in revenue operations (or in an appropriately equipped FSTD.) The event should reflect a realistic course of action the pilot might take to escape from an inadvertent encounter with instrument flight rules (IFR) conditions. POIs should approve methods appropriate to the aircraft, equipment, and facilities available. When the pilot is authorized to operate an appropriately equipped aircraft and the check is conducted at a location where an ILS is operational, demonstrate an ILS approach. POIs may also approve a letdown on partial panel when this would be an appropriate course of action.

8 See Volume 5, Chapter 3, Section 2.

9 Airplanes not having standby instrumentation.

10 See Volume 5, Chapter 3, Section 2.

11 See Volume 5, Chapter 3, Section 2. Any two non-precision approaches authorized by the OpSpecs may be accomplished at the discretion of the inspector or check pilot conducting the check.

12 See Volume 5, Chapter 3, Section 2.

14 Required only for transport, commuter, turboprop, and Special Federal Aviation Regulations (SFAR) aircraft families as described in Volume 3, Chapter 19, Section 1.

ATTACHMENT B: GENERAL AVIATION / BUSINESS AVIATION AIRPORT DATA

ACU-KWIK - MARCH 2015 (U.S., Canada, Mexico)

RANK	ICAO
1	KTEB
2	KHOU
3	KFLL
4	KDAL
5	KOPF
6	MMTO
7	KPBI
8	KMIA
9	CYYZ
10	MMUN
11	CYVR
12	KLAX
13	MYNN
14	CYUL
15	CYHZ
16	KVNY
17	KBED
18	MMSD
19	KFXE
20	KAPA
21	KTUL
22	KHPN
23	MMPR
24	KIAD
25	KLAS
26	KPHX
27	KBFI
28	KSAT
29	KSDL
30	KPDK
31	KBGR
32	KAUS
33	CYQX
34	KOAK
35	KPWK
36	KTUS
37	KLGB
38	KEGE
39	KIAH
40	CYYC
41	KLIT
42	KJFK
43	KMCO
44	KSLC
45	KOMA
46	CYYR
47	KCRQ
48	CYWG
49	KISM
50	MMMX

FAA AIR TRAFFIC ACTIVITY DATA SYSTEM - 2012 — GA Itinerant Operations

RANK	ICAO
1	KDAB
2	KVNY
3	KDVT
4	KAPA
5	KTMB
6	KFXE
7	KSFB
8	KFRG
9	KLGB
10	KSNA
11	KTEB
12	KBFI
13	KPDK
14	KMYF
15	KFFZ
16	KHPN
17	KMLB
18	KDWH
19	KCRQ
20	KPRC

FAA AIR TRAFFIC ACTIVITY DATA SYSTEM - 2013 — U.S. Ranked by GA Operations at Tower, Sorted by Itinerant IFR Traffic

RANK	ICAO	ITINERANT IFR
3	KDAB	45617
34	KPDK	45559
7	KSFB	39935
5	KAPA	37233
19	KSNA	33777
25	KFXE	33638
28	KCRQ	32556
2	KVNY	31495
35	KSDL	29796
9	KTMB	28961
43	KMLB	27124
23	KBFI	26437
33	KBED	26058
6	KLGB	25080
16	KMYF	22082
32	KFPR	20784
15	KVRB	19373
20	KDWH	18324
45	KPIE	17383
11	KHIO	16389
39	KBUR	15912
18	KCNO	13884
13	KFRG	13517
31	KCMA	13141
14	KSEE	12896
22	KDTO	12647
38	KRVS	12366
44	KVGT	9943
24	KLVK	9431
47	KMER	9198
37	KTOA	8951
40	KSGJ	8662
10	KGFK	7908
42	KOMN	7198
36	KPUB	6550
26	KEVB	6365
1	KDVT	6290
50	KHWD	6132
17	KPAO	5542
29	KPMP	5110
21	KIWA	5055
4	KFFZ	4052
46	KSQL	3567
27	KRHV	2527
30	KHWO	2490
49	KMRI	2278
8	KPRC	2210
12	KCHD	1972
41	KRNM	1591
48	KGYR	870

FAA AIR TRAFFIC ACTIVITY DATA — Air Carrier Itinerant Operations

RANK	ICAO
1	KATL
2	KORD
3	KLAX
4	KDEN
5	KDFW
6	KPHX
7	KJFK
8	KLAS
9	KCLT
10	KSFO
11	KMIA
12	KSEA
13	KMSP
14	KIAH
15	KMCO
16	KEWR
17	KLGA
18	KBOS
19	KPHL
20	KDTW

KEY:

Color	Meaning
Green	AIRPORT IN 1,2 & 3
Orange	AIRPORT IN 1 & 2
Yellow	AIRPORT IN 2 & 3
Red/Orange	AIRPORT IN 1&3
Blue	"121" AIRPORTS

RESERVATION : 512

ABC CHARTER COMPANY
TRIP SHEET

Aircraft Type : GIV
Operating Rule : FAR 135

Contact   AC&CT WG
Scheduling & Dispatch   **Office** (555) 555-5555   **Cell** (555) 555-5555

Grnd Time	Leg	Tail	From	Dept ZULU Date / Time	Dept Local Date / Time	Z	To	ETA ZULU Date / Time	ETA Local Date / Time	Z	ETE	USE	Duty Day
0+00	1	N0A	KSFO	20-Jan-16 17:00	20-Jan-16 09:00	+8.0	KRNO	20-Jan-16 17:45	20-Jan-16 09:45	+8.0	00+45	C	2+15
1+15	2	N0A	KRNO	20-Jan-16 19:00	20-Jan-16 11:00	+8.0	KLAS	20-Jan-16 20:05	20-Jan-16 12:05	+8.0	01+05	C	4+35
20+55	3	N0A	KLAS	21-Jan-16 17:00	21-Jan-16 09:00	+8.0	KCGZ	21-Jan-16 17:55	21-Jan-16 10:55	+7.0	00+55	C	2+25
0+35	4	N0A	KCGZ	21-Jan-16 18:30	21-Jan-16 11:30	+7.0	KTUS	21-Jan-16 19:00	21-Jan-16 12:00	+7.0	00+30	C	3+30
0+30	5	N0A	KTUS	21-Jan-16 19:30	21-Jan-16 12:30	+7.0	KSNA	21-Jan-16 20:55	21-Jan-16 12:55	+8.0	01+25	C	5+25
18+15	6	N0A	KTEB	22-Jan-16 15:10	22-Jan-16 10:10	+5.0	KJFK	22-Jan-16 15:30	22-Jan-16 10:30	+5.0	00+20	T	1+50
0+30	7	N0A	KJFK	22-Jan-16 16:00	22-Jan-16 11:00	+5.0	KTEB	22-Jan-16 17:30	22-Jan-16 12:30	+5.0	01+30	T	3+50

Total Planned Hours: 6+30

Trip Remarks:

DAY 1 / LEG 1	FROM	TO
	SAN FRANCISCO INTL	**RENO/TAHOE INTERNATIONAL**
	SAN FRANCISCO CA USA	RENO NV USA
	Longest Runway : 11,870	Longest Runway ; 11,002
FBO:	**SIGNATURE FLIGHT SUPPORT**	**ATLANTIC AVIATION SERVICES**
	1052 NORTH ACCESS RD SAN FRANCISCO INTL AIR	655 SOUTH ROCK BLVD
	SAN FRANCISCO CALIFORNIA 94128	RENO NEVADA 89502
	Ph: 650-877-6800 **U : A : 128.92**	Ph: 775-858-7300 **U : 122.95 A : 131.60**
	NO CONTRACT FUEL	
PIC	PIC #1	
SIC	PIC #2	
	No passengers	

DAY 1 / LEG 2	FROM	TO
	RENO/TAHOE INTERNATIONAL	**MC CARRAN INTL**
	RENO NV USA	LAS VEGAS NV USA
	Longest Runway : 11,002	Longest Runway ; 14,512
FBO:	**ATLANTIC AVIATION SERVICES**	**SIGNATURE FLIGHT SUPPORT**
	655 SOUTH ROCK BLVD	6005 LAS VEGAS BOULEVARD SOUTH
	RENO NEVADA 89502	LAS VEGAS NEVADA 89
	Ph: 775-858-7300 **U : 122.95 A : 131.60**	Ph: 702-739-1100 **U : A : 128.88**
PIC	PIC #2	
SIC	PIC #1	
	9 passengers	

DAY 2 / LEG 3	FROM	TO
	MC CARRAN INTL	**CASA GRANDE MUNI**
	LAS VEGAS NV USA	CASA GRANDE AZ USA
	Longest Runway : 14,512	Longest Runway ; 5,200
FBO:	**SIGNATURE FLIGHT SUPPORT**	**CASA GRANDE MUNICIPAL AIRPORT**
	6005 LAS VEGAS BOULEVARD SOUTH	3225 NORTH LEAR AVENUE
	LAS VEGAS NEVADA 89119	CASA GRANDE ARIZON
	Ph: 702-739-1100 **U : A : 128.88**	Ph: 520-251-3366 **U : 122.70 A :**

PIC PIC #2
SIC PIC #1
  9 passengers

DAY 2 / LEG 4	FROM	TO
	CASA GRANDE MUNI	**TUCSON INTL**
	CASA GRANDE AZ USA	TUCSON AZ USA
	Longest Runway : 5,200	Longest Runway ; 10,996
FBO:	**CASA GRANDE MUNICIPAL AIRPORT**	**ATLANTIC AVIATION SERVICES**
	3225 NORTH LEAR AVENUE	1921 E FLIGHTLINE DR
	CASA GRANDE ARIZONA 85222	TUCSON ARIZONA 857
	Ph: 520-251-3366 **U : 122.70 A :**	Ph: 520-889-0593 **U : A : 122.95**
		800-889-0593

PIC PIC #2
SIC PIC #1
  7 passengers

DAY 2 / LEG 5	FROM	TO
	TUCSON INTL	**JOHN WAYNE/ORANGE COUNTY**
	TUCSON AZ USA	SANTA ANA CA USA
	Longest Runway : 10,996	Longest Runway ; 5,701
FBO:	**ATLANTIC AVIATION SERVICES**	**ATLANTIC AVIATION SERVICES**
	1921 E FLIGHTLINE DR	19711 CAMPUS DRIVE #100
	TUCSON ARIZONA 85756	SANTA ANA CALIFORNIA
	Ph: 520-889-0593 **U : A : 122.95**	Ph: 949-851-5061 **U : 122.95 A : 131.58**
	800-889-0593	

PIC PIC #1
SIC PIC #2
  No passengers

DAY 3 / LEG 6	FROM	TO
	TETERBORO	**JOHN F KENNEDY INTL**
	TETERBORO NJ USA	NEW YORK NY USA
	Longest Runway : 7,000	Longest Runway ; 14,511
FBO:	**ATLANTIC AVIATION SERVICES**	**SHELTAIR AVIATION SERVICES**
	233 INDUSTRIAL AVENUE	GA TERMINAL BLDG 145
	TETERBORO NEW JERSEY 07608	JAMAICA NEW YORK 11
	Ph: 201-288-1740 **U : A : 132.00**	Ph: 347-566-6620 **U : 122.95 A :**
	800-477-5387	

PIC PIC #1
SIC PIC #2
  No passengers

DAY 3 / LEG 7	FROM	TO
	JOHN F KENNEDY INTL	**TETERBORO**
	NEW YORK NY USA	TETERBORO NJ USA
	Longest Runway : 14,511	Longest Runway ; 7,000
FBO:	**SHELTAIR AVIATION SERVICES**	**ATLANTIC AVIATION SERVICES**
	GA TERMINAL BLDG 145	233 INDUSTRIAL AVENUE
	JAMAICA NEW YORK 11430	TETERBORO NEW JER
	Ph: 347-566-6620 **U : 122.95 A :**	Ph: 201-288-1740 **U : A : 132.00**
		800-477-5387

PIC   PIC #2

SIC   PIC #1

No passengers

JOHN F KENNEDY INTL

NEW YORK NY USA

Longest Runway : 14,511

TETERBORO

TETERBORO NJ USA

Longest Runway ; 7,000

ATTACHMENT D: SAMPLE SCENARIO

Scenario Enhanced Recurrent Training & Checking—Sample Scenario

- **Prerequisites**
  - Recurrent Proficiency Check Only — crew must be current
  - Full crew: PIC / PIC or PIC / SIC
    - Single pilot checking not authorized
  - Crewmembers enrolled in Aircraft Specific Part 135 Standardized Curriculum
  - PIC must meet requirements of 135.225(e)

- **Guidance**
  - Required Events will be graded during each flight leg as the staged check progresses using the standardized multi-point grading system
  - Each crewmember will be debriefed at the end of each day and made fully aware of the events successfully completed
  - Unsatisfactory events will be carried over to Day # 3 for retraining and re-check
  - Day #3 will include a local training/checking flight leg for retraining/re-checking unsatisfactory events
  - All other flight legs are checking flight legs

Scenario Enhanced Recurrent Training & Checking—Sample Scenario

- **Courseware (provided to the crew during Ground School)**
  - Part 135 Trip Sheet/Scenario Briefing
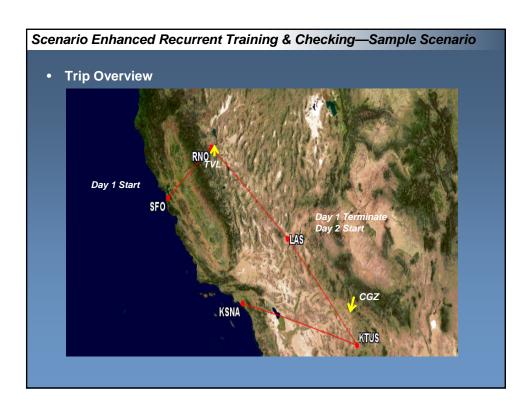 - Approach Charts and Maps
  - Computer Flight Plans
  - Aircraft maintenance status, location and fuel load
  - Weight & Balance Forms
  - External Preflight Video
  - Weather briefing and NOTAMs for scheduled airports

Scenario Enhanced Recurrent Training & Checking—Sample Scenario

- **Trip Overview**

Sample Scenario/Staged Check—Day One

- **Leg 1   PIC #1**
  San Francisco (KSFO)   South Lake Tahoe (KTVL)
  Positioning flight to pick up passengers in Lake Tahoe
  Will miss the approach at KTVL & divert to KRNO

- **Leg 2   PIC #2**
  KRNO – KLAS
  Revenue Flight   9 passengers

Sample Scenario/Staged Check—Day One / Leg 1 – PIC #1

- **KSFO – KTVL (Non Towered Airport)**
  - **<> Indicates 135 Required Check Events**
    - **<>Preflight inspection**
    - **<>Powerplant start**
    - **<>Taxiing**
    - **<>Pre-Takeoff Checks**
    - **<>Instrument Takeoff**
    - **<>Rejected Takeoff   due to airspeed indication problem**
    - **<>Departure Procedure**

- **Events Accomplished @ KTVL (Non Towered Airport)**
  - **<> Indicates 135 Required Check Events**
    - **<>Non-Precision Approach KTVL (LDA DME   Rwy 18)**
    - **<>Missed Approach with Powerplant failure**
    - **<>Holding**

Sample Scenario/Staged Check—Day One / Leg 1 – PIC #1 *(continued)*

- **Events Accomplished @ KRNO**
  - **<> 135 Required Check Events**
    - **<>Precision Approach w/ Powerplant Failure**
    - **<>Landing from a Precision Approach**
    - **<>Landing with a Powerplant failure**
    - **<>After   Landing Procedures**
    - **<>Parking and Securing**
    - **<>Normal/Abnormal Procedures**
    - **<>Emergency Procedures**
    - **<>Judgment**
    - **<>Crew Coordination / CRM**
    - **<>Comm / Nav Procedures**

Sample Scenario/Staged Check—Day One / Leg 2 - PIC #2

- **Reno to Las Vegas – PIC # 2**
  Events accomplished @ KRNO
  <> Indicates 135 Required Check Events
    - **<>Preflight inspection**
    - **<>Powerplant start**
    - **<>Taxiing**
    - **<>Pre-Takeoff Checks**
    - **<>Normal takeoff**
    - **<>Crosswind Takeoff**
    - **<>Departure Procedure**
    - **<>Unusual Attitude Recovery**
      - **Insert an upset that leads to an unusual attitude**

Sample Scenario/Staged Check—Day One / Leg 2 – PIC #2

- **Reno to Las Vegas – PIC # 2**
  Events accomplished @ KLAS
  <> Indicates 135 Required Check Events
    - **<>STAR / FMS Procedures**
    - **<>Holding (on the arrival)**
    - **<>Precision Approach**
    - **<>Coupled Approach**
      - **Windshear reported on final approach**
    - **<>Missed Approach with Powerplant Failure**
      - **Powerplant Restart**
    - **<>Precision Approach**
    - **<>Landing from a Precision Approach**
    - **<>After   Landing Procedures**
    - **<>Parking & Securing**

Sample Scenario/Staged Check—Day One / Leg 2 – PIC #2 *(continued)*

        <>Normal - Abnormal Procedures

        <>Emergency Procedures

        <>Judgment

        <>Crew Coordination / CRM

        <>Comm / NAV Procedures

Sample Scenario/Staged Check—Day Two

- **Leg 3   PIC #2**
  Las Vegas (KLAS) > Casa Grande (KCGZ)
  Drop off 2 passengers and proceed to Tucson

- **Leg 4   PIC #2**
  Casa Grande (KCGZ) > Tucson (KTUS)
  Drop off all passengers

- **Leg 5   PIC #1**
  KTUS > KSNA
  Positioning flight
  Trip will divert to KPHX due to pressurization problem

Sample Scenario/Staged Check—Day Two / Leg 3 – PIC # 2

- **Las Vegas (KLAS) > Casa Grande (KCGZ)**
  Events accomplished
    - **<> Indicates 135 Required Check Events**
      - **<>Preflight Inspection**
      - **<>Powerplant start**
      - **<>Taxing**
      - **<>Pretakeoff checks**
      - **<>Instrument takeoff**
        - **Due to thunderstorms & rain showers**
      - **<>Departure Procedure**
        - **Climb VIA**
- **Events accomplished @ KCGZ (Non towered airport)**
    - **<>Nonprecision approach**
      - **GPS Runway 5**
    - **<>Normal Landing**
    - **<>After Landing Procedures**

Sample Scenario/Staged Check—Day Two / Leg 4 – PIC #2

- **Casa Grande   Tucson**
    - **<> Indicates 135 Required Check Events**
      - **<>Powerplant start**
      - **<>Taxiing**
      - **<>Pretakeoff Checks**
      - **<>Rejected Takeoff**
      - **<>Powerplant Failure   Takeoff**

Sample Scenario/Staged Check—Day Two / Leg 4 – PIC #2 *(continued)*

- **KTUS**
    - <>Precision Approach with Powerplant Failure
        - ILS Runway 11
    - <>Landing from a Precision Approach
    - <>Landing with Powerplant Failure
    - <>Normal / Abnormal Procedures
    - <>Emergency Procedures
    - <>Judgment
    - <>Crew Coordination / CRM

Sample Scenario/Staged Check—Day 2 / Leg 5 – PIC #1

- **Tucson –KSNA (400nm)   Divert to KPHX   PIC #1**
- <>Indicates 135 Required Check Events
    - <>Preflight Inspection
    - <>Powerplant start
    - <>Taxiing
    - <>Pretakeoff checks
    - <>Takeoff with Powerplant failure
        - Restart
        - Climb to FL 400 (best rate)- give a crossing restriction
    - <>Approach to stalls   Clean Configuration
        - Pressurization controller malfunction   induce a divert to PHX
    - <>Abnormal & Emergency procedures

Sample Scenario/Staged Check—Day 2 / Leg 5 – PIC #1 (continued)

- **Visual Approach**
    - <>No Flap / Nonstandard Flap Landing
    - <>Crosswind Landing
    - <>After Landing Procedures
    - <>Parking & Securing
    - <>Normal / Abnormal Procedures
    - <>Emergency Procedures
    - <>Judgment
    - <>Crew Coordination / CRM
    - <>Comm/ Nav Procedures

Sample Scenario/Staged Check—Day 3 / Cleanup Session – PIC #1

- **KTEB   KJFK (Engines running)**
    - <>Normal Takeoff
    - <>Steep Turns
    - <>Unusual Attitudes
    - <>Normal Precision Approach   JFK
    - <>Coupled Approach
    - <>Rejected Takeoff   **(Unsatisfactory from Day 1)**
    - <>Missed Approach
    - <>2nd Non Precision Approach
    - <>Circling Approach
    - <>Landing from a Circle
    - <> Approaches to Stalls

Sample Scenario/Staged Check—Day Three / Cleanup Session – PIC #2

- **KJFK – KTEB (Engines running)**
  - <>**Crosswind takeoff**
  - <>**Steep Turns**
  - <>**Approaches to Stalls – Landing Configuration**
  - <>**2nd Non Precision Approach**
  - <>**Circling Approach**
  - <>**Landing from a Circling Approach**
  - <>**Rejected Landing**
  - <>**Visual Approach**
  - <> **Approaches to Stalls**