Transport Jet Airlines

Advanced Qualification Program

IMPLEMENTATION
AND
OPERATIONS PLAN
(An I & O Plan Template)
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Introduction
The Advanced Qualification Program (AQP) authorizes airlines to develop proficiency-based training programs based on an analysis of those tasks in which a crewmember must be proficient to safely operate transport category aircraft under 14 CFR 121 or 135. AQP provides a voluntary alternative method for qualifying, training, and certifying crewmembers, instructors and evaluators. AQP differs from 14 CFR 121 and 135 training programs, because it is a systematically designed and proficiency based methodology that also integrates Crew Resource Management (CRM) practices into technical training modules. Unlike traditional training requirements, AQP training is developed to meet the unique needs of specific flight crew qualification programs. Instructional systems development (ISD) processes provide the foundation for curriculum development and validation for an AQP.

This document describes Transport Jet Airlines’ plan for implementing and operating an Advanced Qualification Program (AQP); it details the implementation of our proposed Continuing Qualification training, and also forms a platform for future development of AQP Indoctrination and Qualification curriculums at Transport Jet Airlines. Separate documents (such as the Job Task List/Job Task Analysis, Qualification Standards, ISD Curriculum Development Methodology, and Curriculum Outlines) complement this Implementation and Operations Plan to further describe each proposed pilot and instructor/evaluator training program. Altogether, these documents support our application for FAA approval to conduct training under the provisions of 14 CFR 121 subpart Y, Advanced Qualification Program (AQP).

Purpose
This Implementation and Operations (I&O) Plan is the master document for developing AQP in training programs. The Implementation and Operations (I&O) Plan has two major goals. The first goal is AQP implementation planning that describes the process by which training programs transition into AQP, including a transition schedule with milestones. The second goal is operations planning, describing the strategies for ensuring the Advanced Qualification Program fulfills the purpose for which it was created. The I&O Plan is divided into two primary sections:

Part I, the Implementation Plan. This section describes the process through which Transport Jet Airline’s current 14 CFR 121 training programs will transition into an AQP (Note: or, for an airline that’s developing a curriculum as part of its’ FAA initial certification process). The Implementation Plan contains:

- Phase I Application Procedures
- Phase II Curriculum Development Process
- Phase III Small Group Tryout Strategy
- Phase IV Initial Operations
- Phase V Continuing Operations

The Implementation Plan identifies the company’s AQP team manager, subject matter experts, curriculum and document developers, and database administration structure. The
Implementation Plan also acknowledges the role of the FAA Extended Review Team (ERT) assigned to oversee the implementation of AQP at Transport Jet Airlines.

Part II, the Operations Plan. The second goal is an operations plan that describes the strategies intended to ensure that AQP meets the intended training needs. This section includes:

- a description of the strategies used for evaluating and maintaining the program during Phases IV and V
- procedures for data acquisition and management
- program effectiveness evaluation
- curriculum maintenance and updates
- student and instructor/evaluator performances

The Operations Plan also defines the processes for:

- monitoring and responding to demographic changes
- upgrading equipment
- evaluating first look activities
- ensuring optimal crew pairings
- developing and evaluating scenario-based activities

Finally, this I&O Plan is intended to be a continuously updated document that reflects current procedures and practices followed at Transport Jet Airlines as part of our AQP.

Part I - Implementation Plan
The Implementation Plan describes the process by which each fleet will transition into AQP including a transition schedule with milestones, including a description about how the program will be maintained through Phase IV and V. The Implementation Plan also includes a brief overview of the airline’s AQP program office.

AQP Team -
Our team consists of the heads of those departments involved with the planning and implementation of our AQP. This team will oversee the implementation of AQP throughout all our fleets. Our AQP team consists of:

- Chief Pilot or Manager, Flight Standards – all fleets
- Manager, Flight Training – all fleets
- Manager, AQP
- Manager, Flight Standards – in associated fleets (if more than one AQP fleet)
- Manager, Flight Training – in associated fleets (if more than one AQP fleet)
AQP OFFICE

To assist the AQP team, the AQP Office is structured to achieve the goal of bringing all fleet training programs into AQP. This office oversees the implementation of AQP for all fleets, crewmembers, instructors and evaluators. This responsibility includes:

- Performance data acquisition and analysis
- Curriculum development, curriculum maintenance and document development
- Development of special training courses
- Maintenance of the Program Audit Data Base (all master AQP documents).
- Submission of monthly and annual data to FAA AFS-230

The AQP Office is modeled upon the guidance of AC 120-54, as amended, and consists of the following positions:

AQP Manager -

The AQP manager is responsible for AQP leadership and serves as the primary contact with the FAA and external organizations regarding AQP. The manager coordinates at the management level with appropriate organizations, and provides guidance and assistance to the Flight Training managers to ensure compliance with AQP policy and structure. The AQP manager is a training professional who is also knowledgeable of ISD processes and FAR training requirements.

Subject Matter Experts -

Subject Matter Experts (SME) are assigned by the fleet manager to provide technical input and design guidance for each module of training courseware. SMEs may be line-qualified pilots, instructors / evaluators, or they may be other instructors who are qualified and assigned to a training program.

Document and Curriculum Developers (AQP Support Staff) -

Document and curriculum developers are training personnel who work under the direction of the AQP Manager. This support staff helps each aircraft fleet manager incorporate and maintain each training program to ensure compliance with FAA AQP policy. They offer instructional design and development, document preparation, and data analysis support as needed by the fleet managers, and their tasks are directed by the AQP Manager.

Document Managers –

In conjunction with the AQP manager, it’s the responsibility of each fleet manager to maintain aircraft-specific AQP submission documents (Curriculum Outline, Task Analysis, and Qualification Standards). Each fleet manager has an assigned curriculum developer to manage document currency and distribution for their
respective training program. As each curriculum is developed, the document manager will coordinate with the fleet manager’s team to distribute new and revised courseware.

In addition, the AQP Manager will maintain master records of all corporate AQP submission documents (Application, Implementation and Operations Plan, and Curriculum Development Methodology) to ensure AQP document control and compliance with FAA training program approval letters.

Database Administration

All performance data collected throughout the AQP will be entered into Transport Jet Airline’s Performance-Proficiency Data Base (PPDB). Transport Jet Airline’s AQP database will be maintained by systems professionals who are qualified in advanced database technologies. These individuals are responsible for development, maintenance and enhancement of the automation environment (hardware, software and communications) supporting the PPDB, including maintenance of the PADB. They also provide routine access and research tools for designated users and analytical support for complex inquiries.

Transition Planning

Transport Jet Airlines’ transition plan for AQP describes a transition plan from traditional 14 CFR 121 training to curriculums approved under an AQP. It’s anticipated that the use of modular AQP developed courses will facilitate our orderly transition from current training to AQP training. The AQP curriculums authorized by 14 CFR 121 subpart Y, Advanced Qualification Program, are listed here.

<table>
<thead>
<tr>
<th>Type of Training</th>
<th>Curriculums</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot</td>
<td>- Indoctrination</td>
</tr>
<tr>
<td></td>
<td>- Qualification</td>
</tr>
<tr>
<td></td>
<td>- Continuing Qualification</td>
</tr>
<tr>
<td>Instructor / Evaluator</td>
<td>- Indoctrination</td>
</tr>
<tr>
<td></td>
<td>- Qualification</td>
</tr>
<tr>
<td></td>
<td>- Continuing Qualification</td>
</tr>
</tbody>
</table>

Transition Schedules

Transport Jet Airlines will follow an incremental schedule for transitioning our crewmembers, instructors, and evaluators from their current 14 CFR 121 training programs into the new AQP curriculums. This section contains the proposed transition schedules for the implementation of the curriculums. The schedules are in a footprint format of the anticipated activities that sequence the progression of the AQP transition.

Pilot Indoctrination Training

In the future, after an AQP Continuing Qualification (CQ) curriculum is implemented, Transport Jet Airlines intends to design an AQP Indoctrination curriculum to be part of
our overall AQP implementation strategy. All candidates for a pilot position at Transport Jet Airlines must successfully complete an indoctrination curriculum. The indoctrination curriculum consists of all training elements that will be learned and evaluated before an individual may begin a qualification curriculum. Indoctrination curriculum segments consist of both ground training and evaluation. Two distinct areas of ground training make up the indoctrination curriculum. The first one contains certificate holder specific training that acquaints crewmembers with company policies and general operational knowledge. The second area of learning consists of duty specific training such as weather, security, hazardous material and general emergency subjects. In summary, the purpose of basic indoctrination is to prepare each crewmember to enter into a qualification curriculum.

Continuing Qualification Training

The continuing qualification curriculum consists of systems training, procedures integration, validation, and evaluation phases preparing the crewmember for duties in a specific series of aircraft. Transport Jet Airlines has developed a continuing qualification curriculum for the “Twin Jet” series of Group II aircraft. This curriculum contains ground and flight training and operational experience. Transport Jet Airlines uses system and procedures learning integration to relate technical knowledge and skills to performance and motor skill proficiency. Phased validation in the ground and flight training segments reinforce the desired learning objectives and achievement levels.

Crew Resource Management - Training Integration

Transport Jet intends to fully integrate Crew Resource Management (CRM) learning and skill enhancement within all segments of our Continuing Qualification curriculums. When it’s developed in the future, the Indoctrination curriculum will introduce CRM concepts by emphasizing communication exercises and basic tasks. Toward the end of ground training in the Continuing Qualification curriculum, CRM subjects become more advanced with practical scenarios and aircraft automation interface exercises. Finally, flight simulator training refines CRM skills with the introduction of Line Operational Flight Training (LOFT) and facilitated debriefings.

Indoctrination - AQP Implementation Schedule

<table>
<thead>
<tr>
<th>Begin Phase II</th>
<th>Enter proposed date (Ref: AC120-54; 14 CFR 121, as amended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin Phase III</td>
<td>Enter proposed date (Ref: AC120-54; 14 CFR 121, as amended)</td>
</tr>
<tr>
<td>Begin Phase IV</td>
<td>Enter proposed date (Ref: AC120-54; 14 CFR 121, as amended)</td>
</tr>
<tr>
<td>Begin Phase V</td>
<td>Enter proposed date (Ref: AC120-54; 14 CFR 121, as amended)</td>
</tr>
</tbody>
</table>
TwinJet Fleet - AQP Continuing Qualification Curriculum Implementation schedule:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>III</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>IV</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>V</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
</tbody>
</table>

Twin Jet Fleet - AQP Qualification Curriculum Implementation schedule:

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<tbody>
<tr>
<td>II</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>III</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>IV</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>V</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
</tbody>
</table>

Instructors/Evaluators – Implementation Schedule

An AQP Continuing Qualification (CQ) Differences curriculum will be designed for our current Instructor/Evaluator (I/E) staff prior to the development of an initial I/E Qualification Curriculum. An implementation strategy will be followed according to the following schedule:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>II:</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>III</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
<tr>
<td>IV (fleet specific):</td>
<td>AQP Differences: Twin Jet Instructor Enter proposed date (Ref: AC120-54) I/E Qualification Curriculum (Initial) - Enter proposed curriculum development date.</td>
</tr>
<tr>
<td>V (Fleet specific)</td>
<td>Enter proposed date (Ref: AC120-54)</td>
</tr>
</tbody>
</table>
Existing Part 121 Training Programs

Transport Jet Airlines has an FAA approved 14 CFR 121 training program for its current aircraft fleet, and we plan to take full advantage of these successful training programs by using them as resources for planning and implementing an AQP. Transport Jet Airlines will incorporate valuable lesson materials from its existing Part 121 programs into the AQP, where appropriate.

Transport Jet Airlines will build upon our existing lesson and document maintenance systems to keep both the Part 121 and AQP programs current. Transport Jet Airlines maintains current and approved Part 121 training program materials through the initial AQP training cycle for each transitioning position and fleet, as a means for comparing the two programs, and to provide an alternative training program in the event AQP implementation is not satisfactory.

Transition Out of AQP

There are unique situations that could cause an airline to return to 14 CFR 121 Appendix E and F training programs from AQP training. Since participation in AQP is voluntary under 14 CFR 121 subpart Y, Transport Jet Airlines could voluntarily withdraw from AQP, or the FAA may withdraw its’ AQP approval. In either instance, Transport Jet Airlines must re-implement its’ previously approved FAR 121 training programs for all fleets, and then transition the crews back into an appropriate 14 CFR 121 program.

Transport Jet Airlines estimates it will require at least three months to reconstitute and re-certify potentially dormant Part 121 programs, then an additional six months to transition all crewmembers out of AQP and into Part 121 programs. In summary, Transport Jet Airlines anticipates up to twelve months to ensure the orderly transition from an AQP program to return to 14 CFR 121 appendix E and F training curriculums.

Finally, a crewmember may transition from an aircraft for which AQP is in place to an aircraft for which AQP has not yet been developed. In this case, the crewmember will re-enter the ongoing stream of the Part 121 training program for the non-AQP aircraft. Recurrent training intervals will be referenced to the Part 121 qualification event.

Transition from AQP to FAR 121 appendix E and F training curriculums:

Continuing Qualification (CQ) curriculum: Pilots who are enrolled in the AQP Continuing Qualification program at the time of the transition from an AQP curriculum back to FAR 121 traditional training will be migrated into the Transport Jet Airlines Flight Operations Training Manual (FOTM) defined recurrent program in accordance with the example table below:
The following charts are intended as one example of a pilot transition plan from AQP returning to traditional 121 training programs:

<table>
<thead>
<tr>
<th>Location in AQP CQ program</th>
<th>Placement in FAR 121 Recurrent Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due CQ Ground School and CMV1</td>
<td>FAR 121 Recurrent Ground School and 6-month PT.</td>
</tr>
<tr>
<td>Due CBT / CMV 2 / CLOE (to include “Pre-“ and “Grace-“ month pilots)</td>
<td>Accomplish the annual FAR 121 CBT and Proficiency Check (PC).</td>
</tr>
</tbody>
</table>

- Crewmembers will then resume their recurrent training and checking requirements as defined in FAR 121.
- If the FAA grants CQ interval extension, pilots will be migrated into the closest-in-comparison FAR 121 recurrent event (see chart above) no later than 6 months after their preceding AQP CQ event.
- If a pilot has not completed an AQP CQ event in the previous 6 months, that pilot shall be scheduled in the next month to attend the indicated FAR 121-required recurrent training or checking.

Pilot Qualification (Qual) curriculum: Pilots who are enrolled in the AQP Pilot Qualification program at the time of transition from AQP to traditional FAR 121 training will be transitioned into the Transport Jet Airlines Flight Operations Training Manual (FOTM) defined Initial/Transition/Upgrade program, as appropriate.

Pilots in the Initial / Transition will migrate to FAR 121 training as listed below:

<table>
<thead>
<tr>
<th>Location in AQP Qualification Curriculum</th>
<th>Placement in FAR 121 Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending SYS 1 through ADV SYS 4</td>
<td>No differences. Continue under FAR 121 Curriculum</td>
</tr>
<tr>
<td>Attending ADV SYS 5, ADV SYS 6, or Systems Validation</td>
<td>Begin FTD 1</td>
</tr>
<tr>
<td>FTD 1-9 or Procedures Validation</td>
<td>No differences. Continue under FAR 121 Curriculum except “Procedures Validation” is termed “FTD 10 - Procedures Check”</td>
</tr>
<tr>
<td>AST 1-5</td>
<td>No differences. Continue under FAR 121 Curriculum</td>
</tr>
<tr>
<td>AST 6-9 or Maneuvers Validation, Twin Jet SIT, LOT, SPIT, SNAP, IGS, I-FTD, I-LOFT, D-LOFT</td>
<td>Begin AST 6</td>
</tr>
</tbody>
</table>

- Crewmembers will then resume their recurrent training and checking requirements as defined in FAR 121.
- If the FAA grants a CQ interval extension, pilots will be migrated into the closest-in-comparison FAR 121 recurrent event (see chart above) no later than 6 months.
after their preceding AQP CQ event. If a pilot has not completed an AQP CQ Event in the previous 6 months, that pilot shall be scheduled in the next month to attend the indicated FAR 121-required recurrent training or checking.

Requalification:
Transport Jet Airlines will place pilots (with FAA approval) enrolled in AQP Requalification into the FOTM-defined FAR 121 Requalification program on a case-by-case basis – considering length of absence, pilot background, and performance in the AQP Requalification program to date.

AQP TRANSITION PROCESS

Each fleet will follow the process below, with FAA approval for each phase. This process was developed in detail in anticipation of transition of the Twin Jet fleet into AQP. It is expected that this process will be standardized for future training programs, and each successive transition into AQP will occur at an accelerated rate. The AQP phases prescribed in AC-120-54 / 14 CFR 121 subpart Y is:

Phase I – Application:
Transport Jet Airlines submitted an application on ________ for AQP Phase 1 for our Twin Jet fleet, documenting the corporation’s intent to enter the Advanced Qualification Program. The application described how Transport Jet Airlines intended to develop, implement and operate AQP for the Twin Jet fleet, with applications for entry of subsequent fleets into AQP to be reflected in updates to this document.

Phase II – Curriculum Development:
The program development phase of AQP follows the Instructional Systems Development (ISD) process as delineated in the Transport Jet Airlines Curriculum Development Methodology Document. Specific steps incorporated in this phase are the Analysis, Design, and Development parts in the ISD process, summarized below.

- Analysis - a systematic procedure for identifying and documenting the tasks Transport Jet Airlines flight crew members do when they perform their jobs, the order in which they are done, the conditions under which they are performed, the standards to which it they are evaluated, and the skills needed to successfully perform to job standards.
- Design - brings the individual parts developed in the Analysis Phase together into an efficient training program. This phase addresses the development of the proficiency objectives and qualification standards, and the selection of the learning events and media necessary to support the training.
- Development - instructional materials are selected or developed. When the materials have been validated, they are implemented into the appropriate phases of training.

Note: For a complete description of the methods used in program development, see the Transport Jet Airlines’ Instructional System Development Methodology and the Qualification Standards documents.
Phase III – Implementation (Small Group Tryout):

The Analysis, Design and Development processes conducted during Phase II are implemented and evaluated during Phase III (Small Group Tryouts). Prior to entering this phase, Transport Jet Airlines will submit a separate letter addressed to the FAA Manager of Voluntary Safety Programs (AFS-230) and the POI requesting no-jeopardy credit for the small group tryout curriculum students.

After such approval is received from the FAA, all instructors and evaluators who are involved in the delivery of curriculum instruction will be trained in both the delivery of AQP concepts and the new courseware. This initial group of instructors/evaluators will be trained with the standards, syllabus and updated materials. This will be reflected through standard grading of student performance, and knowledge of the different philosophies of traditional FAR 121 (time based) and AQP (proficiency based) training and evaluation, the importance of inter-rater reliability, and the value of student feedback.

Following instructor/evaluator training, the trial curriculum is tested on actual crewmembers, and the results are assessed in a formative evaluation process that includes solicited feedback from instructors, evaluators and students. Adjustments to the training program will be formed from the results of the small group tryouts.

The implementation and evaluation of each ISD process occurs during this phase to include:

Evaluation of Facilities:

The facilities now used to house the training devices and classrooms will be reviewed prior to Phase III by the FAA to assure they are considered adequate for current training requirements under the provisions of either AQP or Part 121. FAA approved Full Flight Simulators, Flight Training Devices and training facilities are listed in Transport Jet’s FAA Operations Specifications. When new fleets are introduced the facilities and training media will be re-evaluated and modified, as appropriate, to accommodate the associated training requirements.

Evaluation of Courseware:

AQP Courseware is evaluated in three ways during Small Group Tryouts:

- Formative Evaluation – Much of the courseware to be used by Transport Jet Airlines AQP has already been tested under its FAR 121 training program; however, several new modules are being added to the AQP program to address line operational and safety considerations. As a result, Instructors and Instructional Design Specialists will observe day-to-day student response during the small group trials. All courseware not previously reviewed by the FSDO/AFS-230 will be reviewed prior to or during small group tryouts.
- Student Performance – Overall student performance will be objectively correlated and analyzed as each small group “class” completes each segment of training.
- Summative Evaluation – Once the students enrolled in small group tryouts has completed the AQP program, they will complete a subjective survey indicating perceived strengths and weaknesses in training and checking. This feedback will then be used to determine changes in preparation for Phase IV. In addition, each instructor or evaluator who participates in the small group trials will be subjectively interviewed to garner feedback and recommendations for further program refinement.

Evaluation of Equipment:

Existing simulators and fixed-base training devices are incorporated into the AQP syllabus in the same manner they are approved and listed in Transport Jet Airlines’ Operation Specifications signed by the FAA POI. No new demands for simulator technology or expansion of simulator capabilities are anticipated.

Evaluations completed during the Phase II analysis phase of AQP training will determine task training in the curriculum, and the appropriate media necessary to train it. This assessment will be validated during Small Group Tryouts.

Any upgrades to simulator technologies and capabilities viewed as enhancements to training will be incorporated into curriculums where appropriate. Other emerging technologies (e.g., distributed training) will also be used to their fullest advantage during transition into AQP.

Evaluation of Students:

Students are evaluated using the grading scale contained in the Qualification Standards document. Students are selected for Small Group Tryouts from those already scheduled for training under Part 121. These students are, subject to FAA approval, given credit for such training under this formative evaluation. As fleets are brought into AQP, this plan shall be revised to request specific approval for training credit.

If the formative evaluation results in the determination that a new AQP curriculum is found deficient, the students in the Small Group Tryouts can be retrained under the approved Part 121 curriculum, as appropriate. The primary means of grading student performance during Phase III operation is an electronic grading system. Performance-Proficiency data on student performance during Small Group Tryouts shall be submitted to the FAA in the same manner as will occur during Phases IV and V.

Evaluation of Instructors and Evaluators:

The evaluation of instructors and evaluators will include monitoring their performance and their students’ success. During the Phase III Small Group Tryouts, instructor/evaluators
are monitored by the FAA POI, the training manager’s staff, and FAA AFS-230 representatives. Frequent feedback is given to the I/E cadre throughout the tryouts. Since they must both train the students selected for the Small Groups Tryouts, and help evaluate and modify the Phase III curriculum, I/Es require close observation to ensure both goals of the tryouts are achieved. Once they master all aspects of teaching under the provisions of AQP, the initial cadre of I/Es will assist in training follow-on instructors in AQP methodology and procedures.

**Note:** For a complete description of the grading criteria and methodology used in program development, see Transport Jet Airlines’ *Instructional System Development Methodology and the Qualification Standards documents.*
Part II - Operations Plan

AC-120-54 states that any AQP curriculum should include procedures for the continuing qualification and evaluation for all crewmembers, beginning in Phase IV and continuing through Phase V. This Operations Plan describes the strategies for ensuring that the Transport jet Airlines AQP fulfills these requirements. It includes a description of the strategies used for evaluating and maintaining the program, including data acquisition and management, effectiveness measurement, curriculum maintenance and updates, and the fleeting of student and instructor/evaluator performances. The Operations Plan also defines the processes for monitoring and responding to demographic changes, upgrading equipment, evaluating first look activities, ensuring optimal crew pairings, and developing and evaluating scenario-based activities.

Phase IV – Initial Operations

In Phase IV, the AQP training program is operated through at least one complete training cycle using actual flight crewmembers in full credit training. All training is conducted in accordance with the AQP guidelines reflected in this document, as well as with the Qualification Standards and Curriculum Outline documents. Proficiency performance data is collected on graded events, reported to the FAA and analyzed in accordance with the evaluation criteria listed in the Operations Plan of this document. Any training modification should be made based upon the analysis of such data and other factors, such as new regulatory requirements and changes in Transport Jet Airlines’ operational environment.

AQP Training Personnel

The following list of personnel identifies and describes the key positions within the AQP training operations and management organization. Due to the size of Transport Jet’s flight operations, AQP personnel in most part hold dual or more responsibilities, which may not be in concert with other airlines with larger training and checking departments. However, due to this tight and efficient organizational structure, standardization and communication are enhanced.

VP-Flight Operations: The VP-Flight Operations is responsible for all flight operations that include pilot, dispatchers and flight attendants.

AQP Responsibilities:

1. Supervises all activities relating to flight and ground training programs, assuring standardization and compliance with Federal Aviation Regulations, company policies and contractual agreements.
2. Ensures availability of adequate aircraft, simulators, training aids and facilities to accomplish the required training. Supervise scheduling of crew members.
3. Develops periodic training projections based on estimates of future initial, upgrade, recurrent and re-qualification requirements resulting from operations.
4. Coordinates with the Chief Pilot to ensure standardization of the training program with Company operating procedures.

Chief Pilot: The Chief Pilot reports to the VP-Flight Operations, and he’s responsible for the management and training of line pilots and instructors/evaluators.

AQP Responsibilities:

1. Provides supervision and direction for the AQP development, approval, implementation and maintenance effort.
2. Coordinates with the FAA POI and AFS-230 on issues relating to AQP.
3. Supervises all activities relating to AQP flight and ground training programs. Assures standardization and compliance with the approved AQP program.
4. Insures AQP qualified instructors/evaluators are sufficiently available and trained for the ground, flight and simulator training/checking functions.
5. Insures periodic evaluations of instructors/evaluators, and assures inter-rater reliability issues are examined and complied with within the instructor/evaluator corp.
6. Convenes and facilitates instructor/evaluator meetings.
7. Prepares and submits reports as required by Company, FAA and other agencies.
8. Serves, when necessary, as a representative for the VP-Flight Operations.

Fleet Manager: The Twin Jet fleet manager reports to the Chief Pilot and is responsible for all daily operational matters concerning the Twin Jet Fleet.

AQP Responsibilities:

1. Assists the Chief Pilot in the development and implementation of Flight Operations policies and procedures.
2. Assists the Chief Pilot in ascertaining proper staffing levels and training requirements for the Twin Jet fleet.

Training Manager: The training manager reports to the VP-Flight Operations, and is responsible for the administration of the training program and supervision of ground training requirements.

AQP Responsibilities:

1. Oversees the activities involved in the maintenance of pilot qualification and training records.
2. Coordinates and supervises the development of the training program, at the direction of the VP-Flight Operations, by assuring standardization and quality of format and content. Ensure that the Training Program curriculum reflects current company, regulatory and industry information.
3. Liaison between the Company and the FAA POI.
4. Ensures qualified ground instructors are trained and available.
5. Monitors ground school requirements to ensure training quality and standardization.
6. Oversees design and implementation of approved changes.
7. Insures individual pilot flight and ground training requirements are accomplished.

Manager of AQP: The Manager of AQP reports to the Chief Pilot, and is also the AQP Data Manager. The Manager of AQP supervises data collection, analysis, and reporting processes and procedures in support of the AQP.

AQP Responsibilities:

1. Establishes and maintains data management capabilities for AQP operations.
2. Supervises AQP data collection, analysis and reporting.
3. Coordinates with company computer services personnel to insure timely assistance, as required, maintaining the AQP.
4. Coordinates with instructors/evaluators on data collection, analysis and reporting consistent with requirements.
5. Prepares reports as required by the company, FAA, and other agencies for management review prior to submission.
6. Maintains liaison with AFS-230 and FAA POI for Performance/Proficiency data reporting.
7. Provides in-house analysis reports for flight operations managers, instructors/evaluators and ground school instructors.

AQP Maintenance

Master Documents: documents requiring POI and AFS-230 approval are:

- Implementation and Operations Plan
- ISD Curriculum Development Methodology
- Curriculum Outlines
- Job Task List/Job Task Analysis
- Qualification Standards for both Instructors/Evaluators and Crewmembers

Transport Jet Airlines manager of AQP maintains master copies of all AQP PADB documents, and is responsible for submission of all documents to the POI and the FAA Manager of Voluntary Safety Programs (AFS-230).

The AQP Office maintains version control of all curriculums and maintains copies of all AQP submission documents, using the procedures found in the PADB Management System document. PADB documents are maintained both electronically and in hard copy.
Curriculum Materials

Curriculum materials for the Twin Jet fleet program, including Instructor Guides, Student Guides, computer-based training lessons, training outlines, training scenarios, checklists and forms are stored and maintained by the training manager for this fleet. Materials for general subjects, such as Human Factors and Indoctrination courses, are maintained by the organizations developing the lessons.

Courseware Authorization, Development and Approval

Each aircraft fleet will design and develop courseware under the guidance of the AQP manager and the flight training department. Completed courseware should be developed, reviewed, and implemented using the “ADDIE” model (Analyze, Design, Develop, Implement, and Evaluate) of Instructional Design methodology.

AFS 230 and the POI will review and approve all such changes to AQP documents as delineated in the respective document prologue. All supporting courseware will be made available for FAA review, as well.

Maintaining Curriculum Currency

Student and instructor training and evaluation data are used to identify curriculum opportunities and address them on a timely basis. Other sources of curriculum updates may include operational and safety reports, new or proposed equipment and procedures, and new FARs.

Based upon the data collected, revisions are typically initiated by the Fleet Manager and coordinated with the Chief Pilot and Manager of Training. The fleet manager, together with the training manager, will review any proposed revision, and then present the proposal to the instructor/evaluator group. This group will be used as a forum to explore the validity and feasibility of the proposed change solution. After the instructor/evaluator group completes its review, they will make a recommendation to either approve or disapprove the proposed program change. The fleet manager will inform the Chief Pilot and the VP-Flight Operations to solicit concurrence on any proposed AQP revision. Transport Jet Airlines’ Flight Operations department will then request approval from the FAA POI and AFS-230 prior to making any formal revisions to any AQP.

Instructors/Evaluators will be briefed and trained, as required, on each program change. These change inputs will be processed in the same manner throughout the AQP to insure that the training system is systematically maintained throughout its life cycle. Once approved, the manager of training will ensure that all AQP revisions are distributed to fleet crewmembers and appropriate others, including the FAA’s Extended Review Team (ERT). If the change requires new or revised courseware, the manager of training will ensure that all courseware materials are documented prior to implementing the AQP revision.
Document Control: Each revision will contain the following control elements for all AQP documents:

- Brief synopsis of each change in sequence with instructions for inserting the revised pages and recording the change on the Revision Record Sheet.
- Change bars next to the text/chart that has been changed.
- The date of the revision on each effective page.
- Each revision will include a list of effective pages.

The following flowchart depicts the AQP revision process:

**AQP CHANGE INPUTS**

- Aircraft modifications
- Operational procedural changes
- FAA regulatory changes
- Pilot critiques
- Instructor/evaluator observations and critiques
- Data analysis

**Chief Pilot/Fleet Mgr/Mgr. of Training**

- Reviews proposed change and presents change to Instructor/Evaluator Group.

**Instructor/Evaluator Group**

- Explore validity and feasibility.
- Make recommendations.

**VP-Flight Operations**

- Review and concurrence.

**FAA Review**

- AFS-230 and POI (ERT) review of proposed changes. Approve/Disapprove

**AQP Mgr.**

- Oversees design and implementation of approved changes.
Monitoring and Responding to Demographic Changes

It is anticipated that the flight crewmembers participating in Transport Jet Airlines’ AQP will include captains and first officers, new hire pilots, instructors and evaluators. Transport Jet Airlines currently has a stable operational environment, and anticipates that future new-hire pilots will be experienced in 14 CFR 121 operations and highly qualified. Each fleet manager monitors whether demographic changes in the pilot-in-training population will affect the curriculums in use. Curriculum modifications will be implemented, as needed, to accommodate any change in crew demographics.

Differences Training:

Pilots who have already completed traditional Part 121 programs do not need differences training prior to participating in AQP training. Therefore, those crewmembers assigned to an aircraft fleet that has converted to AQP training will have their first exposure to AQP when they are scheduled for their first recurrent training after the Continuing Qualification curriculum is operational. Instructors and Evaluators in other Part 121 training programs, however, will require specific I/E differences training in AQP when their fleet transitions into an AQP.

Performance Measurement Strategy

Acquisition and Measurement of Twin Jet Fleet Data:
See information on Data Collection in the Data Plan section of this document.

Student Performance:

A student’s progress is always measured relative to a standard rather than to other students’ performance. An instructor must record a reason code anytime a student is awarded a grade of less than satisfactory to document why the performance was deficient. The grading scale is described in the Pilot Qualification Standards document.

Overall data consistency is ensured by the use of grade sheets. At the completion of data entry, a check is performed on all entered data to ensure that all data fields have been filled, and any unaccomplished syllabus tasks or maneuvers are carried over to subsequent events. Thus, data reliability is deemed extremely high because potential sources of data entry error are readily identified and corrected.

The AQP manager and fleet training manager monitor system reliability, thereby assuring continuous data-collection accuracy. Less than standard performance is assessed at each Validation/Evaluation event over specified periods, and within individual curriculums. This aids in early identification of trends to correct potential problem areas, and guides new subject material based on specific event performance.
Training effectiveness is validated by analysis of these separate but related factors:

- First Look maneuvers data
- Performance at required Validation/Evaluation modules in the training program.
- Extra training events required for completion of training. Analyses are conducted to assess the general proficiency level of the pilot population, and to determine possible trends in instances of less than standard performance levels.
- Non-standard performance in both critical and non-critical maneuvers.
- Performance on LOE event sets.
- Performance on IOE and Line Checks.
- Comparison of the above parameters in year-over-year time intervals.

Student performance data for all pilots entering AQP curriculums are analyzed to assess training effectiveness using the guidelines listed above. Direct student input regarding the effectiveness of the training is considered necessary to program assessment and it’s obtained through a student feedback form.

Performance Review:

Performance data will be reviewed at least quarterly by Transport Jet Airlines’ AQP management team. Changes to a curriculum will be recommended based on performance reviews in conjunction with current line operational events and assessments.

Instructor/Evaluator Performance:

Instructors are evaluated during their Qualification and Continuing Qualification training. Each evaluator’s performance is reviewed during their Qualification and Continuing Qualification training, and also through observation of their grading patterns. Details regarding these programs are contained in the Instructor/Evaluator Qualification Standards and Curriculum Outline documents.

Evaluator grading is calibrated and standardized in Inter-Rater Reliability (IRR) modules during I/E Indoctrination, Qualification and Continuing Qualification. (See the section on Inter-Rater Reliability in the Data Management section of this document.)

Student performance data is also analyzed for evaluator grading trends. These analyses may indicate when an individual evaluator is scoring consistently outside of norms. Aggregated student scores on particular curriculum segments for all evaluators may also indicate a need for curriculum adjustments or changes in instructional delivery.

Training Equipment:

A list of Transport Jet Airlines’ FAA approved Full Flight Simulators (FFS) and Flight Training Devices (FTD) can be found in Transport Jet Airlines’ FAA Operations Specifications. The maintenance, certification level, and modeling records of those devices leased by Transport Jet Airlines from outside vendors are the responsibility of their owner, but all such training equipment must comply with 14 CFR 60 provisions.
First Look Maneuvers Strategy

First Look performance items are graded procedures or maneuvers performed for the first time since the previous Continuing Qualification evaluation interval. First Look maneuvers are those maneuvers that are identified as likely to be sensitive to a loss of proficiency due to infrequent practice. First Look grades are analyzed to determine trends of degraded proficiency due to variable factors, including the length of the training interval.

First Look maneuvers shall not be briefed prior to accomplishment. An I/E should not brief, instruct or in any way influence the outcome of a First Look maneuver in advance of the first execution of the maneuver, since the purpose of a first look maneuver is to collect data diagnostic of skill degradation as a function of training interval. The data collected during First Look will be based upon the first observation of the maneuver. Repeats or attempts at training to proficiency will not be reported to the FAA. After the first execution, the particular maneuver may be debriefed.

First Look maneuvers will be administered as a non-jeopardy event for the pilot. Maneuvers unsuccessfully accomplished must be trained to proficiency prior to administering an LOE. Aggregate data will be collected on crew performance of First Look maneuvers during each CQ evaluation cycle to determine knowledge, skill retention and training program effectiveness. Program modifications may result after an analysis of this data. First Look maneuvers are generally chosen from critical TPOs/SPOs. Transport Jet Airlines will submit its’ list of first look maneuvers to the FAA Extended Review Team (ERT) for approval.

Transport Jet Airlines will use no fewer than three First Look maneuvers for our Continuing Qualification curriculum. Initially, the maneuvers chosen will be those that have historically caused repeats in recurrent training. At our annual review meeting with the FAA ERT, aggregated First Look performance data will be evaluated and a decision taken concerning further adjustments to our maneuver selection. Once the analysis methodology is stable, Transport Jet Airlines may consider sampling more than three maneuvers during First Look to obtain a broader assessment of fleet proficiency.

Crew Scheduling and Pairing Strategy for Scenario-Based Evaluations

Concept - Line Operational Evaluation:

Transport Jet Airlines uses a Line Operational Evaluation (LOE) as a critical component of the integration of Human Factors and technical training for its crewmembers. Guidance from AC 120-35 is followed in the development of LOEs. Training and evaluation scenarios are developed using the proficiency objectives from the Qualification Standards document. All LOE scenarios are evaluated and approved by the FSDO during Phase III, IV and V.
Crew Pairing:

Under an AQP, pilots are trained and evaluated as crews. Therefore, Transport Jet Airlines makes every effort to schedule and pair line crewmembers in a typical crew pairing (e.g. captain and a first officer), however, situations might arise where nonstandard crewmember pairings are needed. This section addresses such situations, and the procedures followed to ensure that effective training and evaluation will occur.

Seat Substitution Policy:

A major goal of AQP is to train a captain and first officer as a crew. AQP training is achieved by structuring training crews in exactly the same manner as line crews. Transport Jet Airlines will schedule the simulator session using a full crew complement that consists of a captain and first officer to the maximum extent feasible. However, due to many unforeseen circumstances such as illness, captain to first officer ratios, vacations and requalification after an extended absence, a nonstandard crew pairing may be necessary. In these instances, the following decision rules will apply to the evaluation strategy and selection of seat fillers:

Seat Substitution for Maneuver Validations:

Transport Jet Airlines will conduct Maneuver Validation events with a normal crew pairing of a captain and first officer. However, when circumstances require the use of a seat substitute or a same-seat crew pairing, the following policy will apply:

Any pilot who has completed Transport Jet Airlines’ AQP qualification course in the applicable aircraft is authorized to serve as a seat substitute for either pilot duty position in that aircraft during Qualification and Continuing Qualification maneuver validations.

Seat Substitution for Line Operational Evaluations:

Transport Jet Airlines will conduct Line Operational Evaluation events with a normal crew pairing of captain and first officer. When a seat substitute is required for one of the positions, the following policy will apply:

- FAA notification: Transport Jet Airlines will notify the POI anytime a nonstandard crew is scheduled for continuing qualification simulator flight training. This notification is intended to alert the FAA for discretionary surveillance to ensure the quality of the evaluation process. The initial notification will be by the monthly training schedule. If the scheduling change was on an emergency basis, the Chief Pilot or his designee will telephone or email the POI.
- A Transport Jet Airlines flight instructor may serve as a seat substitute for either pilot duty position during an LOE.
- A line current Transport Jet Airlines PIC may serve as a seat substitute for the PIC position during F/O LOEs. He may also serve as a seat substitute for the F/O position during a PIC LOE, if he has demonstrated proficiency in F/O seat dependent task training (Note: as described below, Seat Dependant Task Training).
• A line current Transport Jet Airlines F/O may serve as a seat substitute for the F/O position during PIC LOEs. He may not serve in the PIC position during an F/O LOE.
• If a pilot serves as a seat substitute on a specific LOE, that LOE may not be used to evaluate that candidate for 36 calendar months. (This policy does not apply, however, to active Transport Jet Airlines training department flight instructors and evaluators.) If an LOE has been used to evaluate a seat substitute within the preceding 36 months, he may serve as a seat substitute for that LOE without restriction.

Transport Jet Airlines’ priority order of LOE seat substitution:

<table>
<thead>
<tr>
<th>PIC Substitute</th>
<th>SIC Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Qualifications refer to relevant aircraft type)</td>
<td>(Qualifications refer to relevant aircraft type)</td>
</tr>
<tr>
<td>Qualified Line Captain</td>
<td>Qualified Line First Officer</td>
</tr>
<tr>
<td>Qualified Instructor</td>
<td>Qualified Instructor</td>
</tr>
<tr>
<td>Qualified Line Check Airman</td>
<td>Qualified Line Captain (seat dependent task trained.)</td>
</tr>
</tbody>
</table>

Seat Substitutes for Training Modules:

Any pilot who has completed an appropriate qualification flight-training curriculum may serve as a seat substitute for either duty position during any training module. Any training candidate, who has completed the module in which he is to serve as a seat substitute, may serve as the seat substitute for either duty position during that training module.

Seat Dependent Task Training:

As described above, seat-dependent task training may be required for any pilot who will serve as a seat substitute during certain training, validating, or checking events in the opposite seat for which he is qualified to serve. This seat dependent task training will be documented on Transport Jet Airlines training records. Pilots who accomplish flight training modules with a same seat type pairing (i.e. PIC with PIC or F/O with F/O) will receive this seat-dependent task training by default when they swap seats during the flight training course. When this occurs, the simulator instructor will document the required seat substitute seat-dependent task training. The seat-dependent task training referred to here will include, at a minimum, the following duties as either the pilot flying or the pilot monitoring:

• Engine Start(s)
• Taxi out (including the use of nose wheel steering for PIC position)
• Takeoff
• Approach (visual or instrument)
• CAT II/III approach procedures
• Landing
• Taxi-in
INSTRUCTOR AND EVALUATOR POSITIONS

The number of Instructors and Evaluators is determined by a planning and budgeting model that is primarily based on forecasted business volumes. Other factors considered include anticipated rotations and retirements of I/Es, the number of new hires and retiring crewmembers, aircraft introductions and retirements, seat upgrades, work rules, etc.

Instructors:

Transport Jet Airlines maintains an I/E staff with sufficient capacity to handle our forecast training events for Indoctrination, Qualification and Continuing Qualification training. At Transport Jet, all flight instructors are also qualified check airmen for all checks (airplane, simulator and line check). Currently, under our existing FAR 121 approved training program, Transport Jet utilizes (for example) seventeen (17) check airmen and three (3) Aircrew Program Designees.

Evaluators:

There are three evaluator job descriptions. Pilots can receive a check airman title by:

- Recommendation of their fleet manager
- Completion of the approved check airman qualification curriculum
- Designation by the FAA

When all appropriate requirements are satisfied, a Transport Jet Airlines pilot is authorized as listed below:

1. Proficiency Check Airmen (PCA): an individual who is qualified to conduct Continuing Qualification (CQ) curriculum Maneuver Validations and LOE.
2. Line Check Airman (LCA): Line Check Airmen are line pilots qualified to perform required line checks in the aircraft during actual line operations. A LCA is authorized to:
   - Perform IOE instruction, validation, initial line checks, and continuing qualification line checks.
3. FAA Aircrew Program Designee (APD): FAA Aircrew Program Designees are authorized to conduct FAA pilot certification events for Transport Jet Airlines. Note: Either an APD or an FAA Aviation Safety Inspector (ASI), who is qualified in the program, must perform all Qualification Curriculum LOEs.

Instructor and Evaluator AQP Differences:

It’s anticipated the two cadres of instructors and evaluators will be trained to conduct AQP training - those previously qualified as instructors or evaluators under FAR 121 for the Twin Jet aircraft, and those who enter as qualified line crewmembers, but are not qualified to conduct training or evaluation (as applicable) under FAR 121 for the Twin Jet fleet.

1. Transport Jet Airlines instructors and evaluators previously qualified under FAR 121 for the Twin Jet aircraft:
Prior to conducting AQP training, instructors currently qualified under FAR 121 to conduct training events will undergo AQP instructor training, as outlined in the Instructor/Evaluator training curriculum for transitioning instructors. Previously qualified cadre I/Es will act as instructor-trainers for each curriculum segment. They will initially train and qualify a limited group of additional instructors to act as instructor-trainers in their segment. Instructors who also serve as an evaluator will undergo additional training in the evaluator-specific modules, as outlined in the Instructor/ Evaluator training curriculum.

2. Transport Jet Airlines Instructors & Evaluators not previously qualified under FAR 121:

New instructors and evaluators who are not previously qualified fall into three entry categories – those who are Transport Jet Airlines line pilots for the Twin Jet aircraft, those who are Transport Jet Airlines pilots, but not qualified on the respective aircraft, and those who are not Transport Jet Airlines pilots. These instructors will undergo training as detailed in the Transport Jet Airlines AQP Instructor training curriculum when they are hired into the training department.

Instructor / Evaluator Continuing Qualification:

Instructors and Evaluators must participate in ongoing annual Instructor/Evaluator Continuing Qualification training and evaluation. The Instructor / Evaluator Continuing Qualification Training curriculum details the requirements that each instructor or evaluator must complete.

Prior to conducting any AQP evaluation, each evaluator currently qualified under FAR 121 will complete AQP evaluator training, as described in the Transport Jet Airlines Instructor/Evaluator training curriculum.

DATA PLAN

AQP training and evaluation data is collected for the purpose of consistent analysis and improvement of the training program. AQP regulations require data collection and analysis of performance information on crewmembers, instructors and evaluators acceptable to the FAA Administrator to measure satisfactory achievement of training and evaluation objectives.

Transport Jet Airlines policy is to collect and analyze types and quantities of data as a basis for continuous improvement of the AQP. De-identified data must be submitted to the FAA no later than two (2) months after collecting that data. All changes to data collection or reporting are subject to FAA approval. The Data Plan will be maintained and updated so that it reflects the PPDB whenever it is modified.

Qualification Curriculum Gates
Data Collection:

Student progress and performance will be collected and maintained through the use of either a daily electronic grade sheet or a manual student grade book, and an electronic grade sheet at each gate (this may be in the form of a Validation or Evaluation).

Daily Progress – Electronic Grade Sheets:

A given aircraft fleet may choose to collect student performance on a daily basis through the use of an electronic grading system. This option allows an instructor to observe a student’s performance and make notes. An instructor debriefs each student on their performance, and electronically records a progress grade. Information is collected and forward to the database administrator, as outlined in the Transport Jet Airlines’ AQP Data Plan.

*Or, as an Alternate Procedure:*

Daily Progress – Grade Book Entry:

The daily manual grade book allows an instructor to record any training element for that day’s training that’s not completed, as well as pass comments along to subsequent instructors. If an item is incomplete, the instructor marks the “Incomplete” box next to the training element. At the beginning of each succeeding session, the instructor checks the student’s grade book to confirm that all elements in the previous training sessions in segment have been completed. If an instructor finds that an element was not completed in a previous session, he’ll modify the student’s training for the day to ensure completion of
the identified element. Once training on that element is complete, the instructor will mark and initial beside the item on the previous session’s grade sheet to indicate the required training has been accomplished.

Before each evaluation event, the evaluator will review each lesson in the student’s grade book to ensure that no elements remain unaccomplished in accordance with the defined training program. If an element(s) remains to be trained, he will contact the training manager to determine how the additional required training will occur prior to an evaluation. All elements in a curriculum module must be trained in accordance with the defined curriculum before an evaluation can be conducted.

Data Collection at Validation and Evaluation Events:

Student performance will be recorded in the electronic grading system for each evaluation event. For example, an electronic grade sheet will be completed for the Systems Validation, Procedures Validation, Maneuvers Validation, and the LOE. Information collected during these “gated” events will be used to determine training trends and implement courseware modifications, as appropriate.

Reason Codes for each graded event are at the “macro” level:

Transport Jet Airlines uses five standard reason codes – Systems Knowledge, Procedural Knowledge, Automation, Airmanship, and Human Factors. In those cases where the training manager determines that it’s necessary to collect more specific information on a given learning element, he/she will “drill-down”, requiring evaluators to provide more-specific reason codes for that element.

These drill-downs remain in effect for the period specified by the Training Manager to adequately identify the underlying reason for difficulties in student performance, and then monitor performance following curriculum modification. Example: A negative trend becomes apparent on the SPO “Crosswind Landings”. The manager orders a drill-down on that element. The electronic grade system is programmed for more specific reason codes whenever “Crosswind Landings” is scored other than “SAT”. Evaluators who select other than “SAT” for Crosswind Landings will see a pop-up window requiring additional information. This information is collected and compiled with aggregate data on Crosswind Landings for analysis.

Once corrections are implemented and results validated, the drill-down is removed and grading on Crosswind Landings returns to a “macro” level. The electronic grade system will ensure that any prerequisite Validation/Evaluation events are completed before the results of subsequent Validation/Evaluation events may be recorded.

PPDB Data:
Transport Jet Airlines has a fully integrated data collection system for AQP. All PPDB data are maintained on a client server system with network controls and adequate security measures. Only a system administrator may make modifications to electronic grade sheet programming, and these modifications are released to active data collection only after management’s approval. End users such as instructor/evaluators and students are restricted to defined levels of access as determined by management and with individual secure passwords. Problems with data collection such as incorrect student enrollments or orphan files are automatically flagged for corrective action by the system administrator.

PPDB data to be collected include:

- Phase III Data: Existing I/E Training; New I/E Training; Small Group Tryouts
- Phase IV & V Data: Qualification Training: knowledge and performance data
- Continuing Qualification Training Data: performance data
- Validation Data: includes individual maneuver ratings, reason codes on substandard events for diagnostic purposes, codes to indicate referral for additional training and/or elimination of certain training
- Line Operational Evaluations (LOE) Data: session code, overall rating, event set identifiers and ratings, TPO/SPO ratings, reason codes on substandard events, codes to indicate referral for additional training and/or elimination of certain training
- Line Evaluation Data: TPO ratings per individual, technical/CRM evaluation for full crew, AQP currency items
- CQ First Look Maneuver Data: proficiency on a subset of maneuvers observed prior to specific performance training
- Instructor / Evaluator Data: performance and knowledge data collected on I/Es as students specific to their Qual Std; periodic observations of I/Es by QA Evaluators during their I/E duties

Curriculum Data:

Items for measurement are TPOs, SPOs and Event Sets. Events used for data collection may not be the same as for training purposes. Performance evaluation data may be the same, but additional data may be collected and analyzed for training program feedback. Data on all relevant TPOs and SPOs must be collected one or more times in an AQP indoctrination or initial qualification curriculum. In a continuing qualification curriculum, a subset of TPOs and SPOs may be assessed in each training interval, so that all relevant TPOs and SPOs are assessed during the Continuing Qualification cycle.

- TPOs and SPOs are typically defined as skills or behaviors that can be trained and observed, using an FTD or Full Flight Simulator.
- TPOs and SPOs, sometimes called ‘Events’, are grouped into logical instruction units called “Event Sets” as used in LOFT and LOE.

Data Reliability and Consistency:
Each Instructor/Evaluator inputs data directly to the PPDB following each determined event. Data reliability is deemed to be extremely high because potential sources of data entry error are identified and corrected as previously described. Overall data consistency is ensured by the use of smart grade sheets. At the completion of data entry, an automated logic check is performed on all entered data to ensure that all data fields have been filled with appropriate data, and any unaccomplished syllabus tasks or maneuvers are carried over to subsequent events.

The AQP manager, training manager, and the system administrator monitor system reliability, thereby assuring continued data-collection accuracy. Descriptions of the electronic grading system follow.

Electronic Grading System Rationale:

Transport Jet Airlines uses a client-server network to gather student performance data for the ground and simulator phases of training. This method provides the optimum method of data gathering, as every graded maneuver is assigned a score for each student. The input of all data is simple for the instructor to understand and perform accurately. Transport Jet Airlines is using a live database, so if power is lost at a critical moment, only the last few keystrokes may be lost.

Medium:

Data are entered through stations in the client server network in a format referred to as electronic grade sheets. The stations are full-color monitors connected to standard keyboards. The layout of the Grade Sheets (maneuvers and events graded) complements the instructional material. Data is stored in a Microsoft SQL relational database and analyzed for trends and potential problem areas.

Data Input Control:

A unique feature of using Electronic Grading System is that it contains logic that does not allow identifiable data entry errors.

Security:

Direct data entry is the most secure method that is available. The several levels of access to the grading system are password protected. All personal identification information is also protected.

Usability:

By building a grade sheet that is based on a menu driven philosophy, the instructor makes systematic menu-driven selections as logic gates are met. “Subjective” comments can be typed in and objective preloaded skill reason codes are also collected. Electronic grade
sheets are provided, as applicable, for instructor grading for all IOE training and line evaluations. Optional comments screens are provided as needed.

Database Administration:

Training systems professionals knowledgeable of ISD and database technologies develop, maintain and enhance the automation environment (hardware, software and communications) supporting the Performance/Proficiency Analysis System, including maintenance of the PADB. They provide routine access and research tools for appropriate users and provide analytical support for more complex inquiries.

Inter-Rater Reliability (IRR) Training:

All I/Es must complete a course of instruction on scoring crewmember performance that emphasizes the need to score performance against the Qualification Standard for each task, as well as the applicable provisions of the FOM for that fleet. I/Es are drilled on the rating scale provided and the definitions of each rating. They are introduced to the concept of acceptable and unacceptable deviation from the qualification standard. They learn the requirement for Reason Codes and their usefulness to both the student and in curriculum analysis. Finally, IRR Training discusses the rules governing remediation and re-accomplishment of non-standard tasks.

Data Analysis:

Routine data analysis is used to address FAA and Transport Jet Airlines performance information needs from each type of AQP data. Database fields are formulated based on the guidance in the advisory circular and the needs of the Training Managers.

Strategy:

To achieve the AQP goal of capturing all proficiency-based training and qualification data, the Performance Proficiency Data Base (PPDB) is systematically developed, maintained and validated through the collection and analysis of empirical performance data. The data collection programs and databases allow collection and sorting of performance data from the entire population of crewmembers being trained. This results in both high reliability (no transposition errors from single entry) and validity with no sampling errors because the entire population is being observed.

Data management processes are continually upgraded to improve our ability to evaluate program effectiveness. Data-sort techniques are applied to the database to assess crewmember performance over specified periods, and within individual curriculums. This enables us to identify student performance trends, rectify potential problem areas, and introduce new subject matter based on specific event performance. Data are also used to assess individual instructor/evaluator grading trends.
Electronic grade sheet data for all pilots entering the Initial/Transition and Upgrade Qualification curriculums and the Continuing Qualification curriculum are analyzed for performance by event and maneuver, and for any extra training required. Identification of the causes of non-standard performance requiring extra training is vital to the analysis of training effectiveness at Transport Jet Airlines. Therefore, extra training is assessed for any non-standard performance after coordination with the Manager of Training or Fleet Manager.

Data Reporting - Monthly Reports:

De-identified student grades from the PPDB are reported monthly to AFS-230 in these required formats:

- **PDRT**: Proficiency Data Report Table contains 23 fields for every measured item (maneuver, task, procedure or event set).
- **SkIRsn**: Skill Reason Table provides reason(s) for each item in the PDRT not performed to standards.
- **TORT**: Training Objectives Report Table associates each PDRT measured item with its training objective(s), task analysis, qualification standards and curriculum.

Annual Report:

As delineated in AC 120-54, Transport Jet Airlines reports the status of all AQP curriculums in Phase IV or V to the FAA in an Annual Report having these characteristics:

- Based on analyses of data in the Transport Jet Airlines PADB. Performance proficiency data submitted to the FAA is of sufficient quality so that useful data analysis and reporting may provide appropriate insight into the fidelity of underlying curriculums.
- Provides year-over-year comparisons and provides explanations of variances
- Identifies any trends, problem areas or potential deficiencies that could result in decreased proficiency of the crew force or adverse impact on safety
- Summarizes lessons learned and describes corrective measures which have been taken to correct deficiencies (curriculum adjustments made also reported and approved separately)
- Summarizes results of corrective measures since implementation
- Outlines anticipated future changes in operations that could impact AQP
- Describes any changes in the AQP Maintenance Program

Ad Hoc Reports:

- Internal analyses based on PPDB data that are specifically tailored to the needs of particular fleets and curriculums.
- Topics covered may include (but are not limited to):
  - Performance of specific crewmembers
  - Trends in the performance of each maneuver, task, procedure or event set
  - Trends in grading by each instructor
Such reports will be provided by the AQP Office to the Training and Standards Managers for each fleet. Report presentation will be modified to meet the specific needs of the Fleet Manager.

Phase V - Continuing Operations:
Transport Jet Airlines will request FAA approval for AQP Phase V with at least 60 days written notice. Each AQP training program approved for Phase V will be continuously maintained, as in Phase IV.