The Airbus Training Survey

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Shortly after the Pilots' Working Agreement was signed in 1997, US Airways senior management made preparations to introduce a radically different aircraft into our fleet.

The Airbus 319/320/321 was coming to our property, and we needed to learn everything we could about this high-tech, computerized flying machine.

Airbus Industries told us that the most unique feature of these aircraft was their common flight deck and similar flight handling characteristics, thanks to fly-by-wire technology. US Airways told us that the potential savings in fuel and enhancement of revenue would help us grow into a modern, profitable airline. We all agreed that the introduction of Airbus equipment to our fleet would pose major challenges.

After careful consideration, the Company eventually appointed Captain Bob Skinner to manage the Airbus fleet program. His first actions were to choose a staff of Check Airmen and create a comprehensive training syllabus. After accomplishing those tasks, the Airbus team spent the majority of their time conducting engineering simulations, attending meetings, and formulating policies and procedures in order to meet the aircraft acceptance deadline of November 1998.

The effort put forth to prepare for the introduction of Airbus equipment on our property was demanding. The end result of that effort, however, enabled the Airbus management team to win FAA course approval. We were able to conduct the first training class of US Airways Airbus Pilots in August of 1998, at the Air Canada facility in Toronto.

Initial reports from the pilots who attended this training were mixed. The US Airways ALPA Training Committee expected to find some warts in the initial program. However, we had a tacit understanding that any concerns we might have would be positively addressed as the program matured.

After approximately two months, the Ground School portion of Airbus training moved to the US Airways Training Center in Charlotte. Simulator training was divided between Miami and Charlotte. As the number of students who completed Airbus training expanded, common concerns and complaints started to surface.

Eventually, the number of complaints and concerns about Airbus training began to alarm the Training Committee. We requested a meeting with representatives of Airbus Ground Training and Flight Training. On February 17, 1999, we all sat down together in Charlotte to discuss our concerns.

The Training Committee reported that we were receiving complaints about the Pilot Operating Handbook, course material, handouts, Computer Based Training, Flight Training Device, Flight Simulator training, scheduling, food, hotel accommodations, and many other associated issues. We asked the group if they were in receipt of these same pilot concerns and tried to determine if something was being done to alleviate these problems.

After fifteen minutes of debate, it became glaringly apparent that there were four different points of view in the room. To the north, we had the "Good, good, good, great, great, great, nothing is wrong, everything is right" group. To the south, we had the "This goes above my pay

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grade" group. To the east, we had the "I don't know anything about Airbus training problems, I don't want to know anything about Airbus training problems" group. To the west, we had the "We admit that the program has flaws in it, and we would like to fix the problems" group.

We were obviously at an impasse. Only one course of action seemed appropriate at this juncture. We needed to find a way to address the concerns of our pilots in a sensible, non-threatening, scientific manner—one which would produce a medium through which we could effectively communicate. We decided to construct an Airbus Training survey and use the information to address pilot, ground school, and managerial complaints and concerns.

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Methodology

When statisticians conduct a survey or an opinion poll, they strive to ensure that their research data is relatively free of bias and/or contamination. Valid conclusions based on precise facts cannot be reached if subjective elements are allowed to adversely affect the quality of the accrued information.

If the constraints of this important protocol can honestly be met, several other challenges in the information-gathering process must then be addressed. A concerted effort must be made to determine what and how much data should be collected. From that point on, the data must be tabulated, correlated, and measured using a mathematical model.

Ultimately, the statistician's mathematical model must present the collected data in the form of a system, proposition, equation or formula of a phenomenon. By using this tried-and-true scientific method, the researcher can decide whether an assumed hypothesis for a particular phenomenon is valid or not.

Throughout the entire survey process, however, the researcher must account for intrinsic variables which may occur only within the confines of the group or subject he/she is studying. To address that particular concern, the statistician must construct a conceptual model and plug the information into this structure in order to make sense out of what has been collected.

Survey structure

Using these aforementioned guidelines, we broke down initial pilot complaints and concerns into four areas of interest; CBT, FTD, Flight Simulator, and Overall Course Assessment. We insured that all responses to the questionnaire would be confidential. In addition, we employed a mathematical measurement system, the Likert Statistical Model, to provide us with a structural framework of ordinal measurement.

In this model, the number 1 is equivalent to a rating of "poor," 2 is equivalent to a rating of "below average," 3 is equivalent to a rating of "average," 4 is equivalent to a rating of "above average," and 5 is equivalent to a rating of "excellent."

We also included a tabulated section of the survey to measure pilots' opinions about learning systems, Checklist Flow Patterns, and ILS/RNAV Approaches in the FTD portion of their training.

After the surveys were printed and inserted into our *US AIRWAVES* publication, we slowly began to collect data. We immediately noticed that an interesting situation was taking place. We were receiving positive reviews with regard to certain elements of the training process.

This was an important event in our study, since our primary goal was to determine what specific sections of the training course worked well and what sections were in need of change or overhaul.

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Taking into account the number of expected Airbus deliveries, it was imperative for us to make sure that our pilots would be able to acquire the necessary knowledge, skill, and ability they needed to operate this complex technology. To meet this demand, they needed technical support and enhanced resources. Hopefully, the graded results of the survey would strengthen our case for this support.

Computer Based Training

Ten questions were asked in this section of the survey. We collected information regarding pilot opinions on CBT subject matter, time constraints with regard to accomplishing daily assignments, Ground School Instructor level of knowledge, numerous Ground School Instructor personnel changes, course material (handouts, schematics, etc.), and hotel and restaurant facilities.

At the conclusion of this section, we asked the pilots to grade their CBT experience. Keeping in mind the numerical value of the aforementioned grading structure, the final score for CBT was 3.02.

Flight Training Device

In this section of the survey, ten questions were asked. We collected information regarding pilot opinions on FTD subject matter, training procedures, time constraints with regard to accomplishing daily assignments, FTD Instructor level of knowledge, training facilities, the FTD Training Device, and preparation for the oral examination. Finally, we asked the pilots to grade their FTD training experience.

The final score for this training event was 3.36.

Flight Simulator

In this section of the survey, eight questions were asked. We collected information on pilot opinions of simulator training, time constraints with regard to accomplishing daily assignments, quality of instruction, and training facilities and equipment. Finally, we asked the pilots to grade their Flight Simulator training experience.

The final score for this section was 3.60.

Overall course assessment

In this section of the survey, five questions were asked:

1. As a graduate of Airbus training, do you feel that this program was standardized in comparison to other US Airways training programs?
2. Do you feel that this training program was designed with the requirements of the line operation in mind?
3. Do you feel that this training curriculum is designed with the needs and abilities of the student in mind?
4. Were the training devices used in a manner consistent with operational needs?
5. Do you feel that you were trained to proficiency in the operation of the autoflight systems installed on the aircraft?

The answers to these specific questions allowed us to accurately determine whether or not there were elements of the Airbus Training experience which needed improvement.

The final score for this section was 3.35.

With a CBT grade of 3.02, an FTD grade of 3.36, a Flight Simulator grade of 3.60, and an Overall Course Assessment of 3.35, the implications of what the data suggested were clear.

According to the pilots who attended this training, CBT training was graded as only average. FTD was not much better, but it was better than CBT. Flight Simulator was close to good, but the overall course assessment was between average and good.

Statistically speaking, Airbus training was not as good as it should have been.

What we learned, what was good, and what was not-so-good

After tabulating all of the collected information, we can report to the membership the following conclusions:

1. A majority of our pilots had problems getting course material prior to the start of class. This caused many individuals to buy information from outside vendors. Some of that information is reliable, some of it isn't. If it is not US Airways-approved training material, it is not approved training material. At this point in time, however, you can have your POH sent to the Chief Pilot's office via COMAT. Or, simply ask publications to FedEx the POH, at your expense, to your address.
2. Many pilots wanted the opportunity to choose the time of day that they reported for Ground School. Reports at 6:30 a.m. are not welcomed by everyone, and we were successful in stopping Resource Planning from starting classes at 5:30 a.m. Your complaints were heard loud and clear on this issue.
3. Many pilots complained early on about hotel and food facilities. It took some time to fix these problems, but your complaints and concerns were heard and addressed.
4. The Airbus employs a green-blue-white-amber-magenta-red color coded operating system. Our pilots wanted enhanced, color-coded learning resources, not black and white pictures.
5. Most of our pilots complained about the quality and content of CBT. They reported that the systems information they studied did not dovetail into their FTD sessions. They complained that there was little instructor-student feedback during their CBT experience. They also wanted daily testing to determine whether or not they were where they needed to be in the program. They took exception to the fact that the system review prior to the oral examination was conducted on the day before the actual test. This problem is being addressed, even as we speak.

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6. Many pilots liked the concept of FTD, but they were concerned that more emphasis was placed on conducting approaches than on preparing for the oral examination. A significant number of pilots (56 percent) took issue with Ground School instructors teaching flight procedures.
7. Many pilots complained about the Ground Instructor's lack of system knowledge. Some pilots also complained that there were too many instructor changes. They preferred to have no more than two Ground School instructors during their training experience.
8. Many pilots complained that the entire course was too short. Most felt that they had barely enough time to study, understand, and assimilate the required course material. This became an even greater concern once Caribbean overwater procedures were added to the syllabus. Many pilots complained that the level of stress was unnecessarily high.
9. The majority of the pilot group liked their simulator training. Very few complained that they were mistreated. Simulator instructors and IOE instructors received high praise for the knowledge, care and concern they demonstrated while assisting their students.
10. Some pilots raised questions about standardization. These individuals felt that there was a definite disconnect between what was being taught to them and what they were expected to know. They blamed this situation on the syllabus. They reported that the order of systems presentation, coupled with an unfocused FTD program, did little to prepare them for the full flight simulator.

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Corporate culture issues

The US Airways Flight Operations Department is administered by people who are chosen by the Human Resources Department. They perform specific tasks on behalf of, and for the benefit of, the Corporation. These selected individuals must possess the knowledge, skills, ability, and experience to perform their job functions, in order to effectively and legally represent the interests of the Company.

In the real world, we also know that the playing field isn't always level. Sometimes, appointees to managerial positions are often chosen because of who they know. This pragmatic observation was identified by numerous pilots in crew comments and addendum answers on the surveys. We asked why these pilots raised this issue and also questioned if this was a legitimate concern.

If we allowed this observation to be considered in our mathematical model, we would introduce a subjective element into the research process. This element could not be applied or measured, and therefore had to be discarded. Our pilots were, however, trying to tell us something.

As stated earlier in this article, one of our objectives was to keep the research process free of bias and/or contamination. Because these comments and observations were so opinionated, it was necessary for us to determine why some of our pilots were displeased with the Flight Manager and the Airbus Training program. After conducting parallel research on this issue, we were able to provide these pilots with the following information.

The focal point of pilot dissatisfaction with respect to their Airbus training experience was the CBT and FTD portion of training. Our data clearly shows this to be true. What is not true is Captain Skinner's position in this matrix.

Bob Skinner is, first and foremost, a US Airways pilot. Bob Skinner has served the Company as a First Officer, a Line Captain, a Check Airman, a Senior Check Airman, and a Flight Manager.

When he accepted the challenge to bring the Airbus program from concept to reality, the playing field had undergone significant changes. We were no longer exclusively dealing with aircraft executives and vendors in Seattle or St. Louis. We were now conducting business on a truly international level.

Because of this paradigm shift, certain protocols had to be observed and put into place. Our Airbus 319/320/321 Flight Manager and his staff needed to participate in a more formal process of identification, primarily because we were now interacting with European and Asian aviation business interests. Even though he might have been known by an affectionate nickname in a past life, it was now necessary for Bob Skinner to become Fleet Captain Robert A. Skinner in order to effectively represent the interests of the Corporation. This same dynamic applied to all other members of his staff.

While reviewing the comments written about the Airbus Flight Manager and assessing the scores given to the overall course assessment, it

became apparent to everyone involved in the statistical tabulation process that Bob Skinner had been placed in the cross-hairs. He received an abundant amount of blame for the shortcomings of the Airbus Training program. Pilots expressed their anger and frustration for the torment they endured in Ground School by pointing the finger of blame at Captain Skinner and his staff.

The problem with this accusation is simple. It is not fair. Bob Skinner does not control everything that happens in the Airbus training program. That part of Airbus training that he does control works well. The Flight Simulator score supports this conclusion. It is the highest score in comparison to the other three sections of the survey.

It must also be noted that no member of the Training Committee has ever been snubbed, stonewalled, or eliminated from any training concern or situation with regard to our pilot group, by anyone in the Airbus fleet management department. Quite the contrary. Captain Skinner has done everything in his power to provide the members of the Training Committee, and our pilots, with the resources they need to successfully achieve their goals.

What can we do to improve the quality of Airbus training?

By taking the time to participate in surveys and opinion polls, you are helping yourself and your Training Committee to provide information to the Company about what works and what doesn't work. The issue is not, "who is right?" The issue is, "what is right?" If you fill out a survey, you give us factual information that will enable us to provide you with the tools you need to do your job. The issue is primarily one of economics.

Until these concerns were researched, I refused to publish the information you are now reading. I wanted to meet with Captain Bob Skinner and give him the opportunity to discuss the data that we collected and graded. Our purpose on the Training Committee is not to participate in character assassination. Our purpose in this project was to collect facts and secure the best training resources for our entire pilot group.

As a member of the US Airways Training Committee, I can honestly report to you that the majority of our Airbus trainees have been treated with courtesy and professional respect. For the few who have not been treated with courtesy and professional respect, we have addressed your concerns and will continue to do so in the future.

We know of no one in the Airbus Flight Training program who is dedicated to making your training experience a terror. If we find someone who behaves in this manner, we will deal with that individual, and so will Captain Skinner.

What we are doing to improve Airbus training

After meeting with Captain Skinner and Captain John Hope in Pittsburgh on June 11, ALPA Training Committee Chairman Pete Dugstad and I expressed our concerns over those elements of the Airbus training program that are a source of discomfort and pain to our pilots. We received his assurance that he will assist us in obtaining the materials and structural changes we need to safely and efficiently operate this technology.

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Our goals are:

1. Reduce substandard performances on simulator events.
2. Address credibility issues in the Airbus Training program.
3. Enhance communications between the line pilot and the Airbus Training Department.
4. Secure modern and efficient continuing education resources for our pilots.
5. Explore and compare operating procedures with other carriers.
6. Participate in a statistical study designed to determine what actions must be taken to improve the quality of the Airbus Training program.

In the next few weeks, you will be provided with another survey in *US AIRWAVES*. If you are flying the Airbus 319/320/321, or if you were on the Airbus but displaced to another aircraft, please take the time to fill out the survey.

With the information that we collect and grade, we intend to work with all interested parties in order to provide everyone in the training process with the tools we all need to safely and successfully operate this technology.