Comair, Inc.
Lexington, KY
August 27, 2006
DCA06MA064

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ATTACHMENT 7

SUMMARY OF BGA PROJECT NO. 0502-39 (PROVIDED BY LEX)

6 Pages

SUMMARY OF TAXIWAY DESIGNATION AND PUBLICATION ISSUES
RUNWAY 4-22 SAFETY AREA IMPROVEMENTS
BGA PROJECT NO. 0502-39

The construction of the project to improve the safety areas for Runway 4-22 at the Blue Grass Airport, Lexington, Kentucky, was started in 2003. The project (BGA No. 0502-39) had been developed in concert with the Federal Aviation Administration and the Blue Grass Airport Planning and Development office and structured to enable the work on the multi year project to be accomplished on schedule.

Every aspect of the safety area improvement project was subject to FAA regulatory requirements. The airport certification regulation, 14CFR Part 139, governed, in part, runway, taxiway, lighting, marking and signing for the airport surface while various Advisory Circulars governed the design and construction standards of the project. The safety and accuracy of the various navigational aids serving the two runway ends were also governed by FAA requirements. The air traffic control requirements, which would enable the air traffic controllers at the Blue Grass Air Traffic Control tower to manage air traffic during the construction phases, had to be considered. The Blue Grass Airport and FAA planning also had to ensure that accurate information was provided to the FAA for FAA publication of the various aeronautical charts for pilots and airlines to use for instrument approach procedures and for movement on the airport surfaces.

Consequently, the Blue Grass Airport, through the Planning and Development Office, worked in partnership with the following FAA offices for more than four years prior to August 2006: Memphis Airports District Office (General Coordination and AFD), Atlanta NAS Implementation Office (Navigation Aids, flight check, instrument approach and airport charts), Lexington Airways Facilities Office (Maintenance of Navigation aids), the Lexington Air Traffic Control tower and various officials at the FAA's Southern Region Headquarters (Part 139) in Atlanta. Each of these FAA offices had responsibility to oversee the construction project and ensure that the Airport continued to operate in compliance with all Federal Aviation requirements. The fact that the airport had three 14CFR139 compliance inspections without a single violation related to any aspect of the construction project attests to how well the Airport met its safety and operational requirements. The Airport also met all the schedule milestones requested by the FAA to facilitate the FAA's information process for airport and navigation charts and guidance for pilots.

During the four years leading up to June 2006, the successful implementation of the RSA Improvement Project was dependent upon several key dates planned around the ILS facilities flight checks and the FAA's 56-day chart publication cycles. The key dates had been established in close coordination with the FAA

NAS Implementation Center in Atlanta. The two specific offices were ANI-320, Integration and Support Platform Branch, and ANI-380, NAVAIDS Platform Management Branch. The Phase IIIA (Paving and Lighting) and the Phase IIIB (NAVAIDS) construction plans and bid documents had been finalized with construction schedule requirements dependent upon compliance with the following key dates:

- June 19, 2006, deadline for the Runway 4 ILS (relocated glide slope) flight check data for chart publication on August 3, 2006;
- August 3, 2006, chart publication of new Standard Instrument Approach Procedures (SIAP) for the Runway 4 ILS and new Airport Facility Directory;
- August 18-20, 2006, weekend closure of Runway 4-22 for repaving and remarking of runway and connector taxiways, including new taxiway designations and signage;
- October 10, 2006, deadline for the Runway 22 ILS (new glide slope), the Runway 4 MALSR, and the Runway 22 PAPI flight check data submittal for chart publication on November 23, 2006;
- November 23, 2006, chart publication of new SIAP for the Runway 22 ILS.

On May 25, 2006, the FAA Flight Standards Office in Atlanta informed the airport of the revised date for the flight check data submission from June 19, 2006, to June 12, 2006. The change was to allow an extra week for the SIAP preparation for inclusion in the 56-day chart publication cycle. While the work schedule was able to be changed to complete work for the Runway 4 Glide Slope flight check by June 9, 2006, it should be noted that the Airport was not notified of this change by the FAA NAS Implementation Office (ANI 320 and 380) in Atlanta, despite the fact that the Airport had been working with these offices for three years on the project.

On June 5, 2006, the Airport and the FAA representatives from ANI 320 and 380 met. While there was no explanation of the changed flight check data submission date, the FAA did state that the new SIAP for the Runway 4 ILS was on schedule for inclusion in the August 3, 2006, chart publication.

The Airport had intended to keep the markings and lighting for the Runway 4 threshold in the ultimate (final) configuration once the June 9, 2006, flight check was completed. This was to avoid the process of marking – obliterating – remarking all associated runway painting. This intention was stated clearly in the Safety Plans Construction Documents and had been discussed in several coordination meetings with the FAA representatives from ANI 320 and 380. However, on June 18, 2006, the FAA Airports District Office in Memphis objected to the Runway 4 threshold in its ultimate location because it made the data on the existing Airport Facility Directory inaccurate. The proposed Airport Facility Directory would show a 7,325 foot runway until the next publication date.

This issue resulted in the teleconference calls of June 19 and 20, 2006 with the following participants:

John Slone	BGA (Dir. Of Planning & Development)
John Coon	BGA (Dir. Of Operations)
Martin Woodford	BGA (Contract Project Manager)
Tommy Dupree	FAA MEM ADO
Duff Ortman	FAA ACTC Manager
Ron Ide	FAA SSC (LEX Facilities Manager)
Mark Fischer	Tetratech (Project Manager)
Mark Day	Tetratech (Project Engineer)
Mike Darcangelo	Avcon, Inc. (Subconsultant)
Andy Kascer (June 20 only)	Tetratech

The teleconferences addressed the precise information that would be depicted in the Airport Facilities Diagram and the Airport Master Record (FAA Form 5010) that were to be published August 3, 2006. These documents would coincide with the SIAP chart publication and the Jeppesen publications scheduled for the same date.

The second major discussion item of the teleconferences was the physical facilities which would be in place on August 20, 2006, once the runway was paved. Three specific components were discussed:

1. The location of both runway thresholds in their ultimate positions with the declared distances for inclusion on the Airport Facilities Diagram and the Airport Master Record;
2. The new Taxiway A connector designations consisting of taxiways A1 through A6. The associated identifications and directional signage were also included in this discussion;
3. The physical facilities which would not be in existence on August 20, 2006 were discussed. These facilities included the new connecting taxiway A7 and the associated signage and removal of old taxiways A and A5. The FAA comment to this point was that the old taxiway A connector to the old runway 22 threshold had to be physically closed to comply with TERPS criteria.

The third major discussion point of the teleconferences was the Airport's concern that there would be differences between the physical facilities and the Airport Facilities Diagram and charts on the SIAP publication of August 3, 2006, and the reopening of the runway on August 20, 2006.

The Airport proposed the FAA publish an interim Airport Facilities Diagram which would depict the actual physical layout of the runways and taxiways that would be in place from August 3, 2006, until the new taxiway A7 was constructed. The proposed interim Airport Facilities Diagram would have

depicted the old taxiway A as closed, the old taxiway A5 re-designated as taxiway A and taxiway A7 under construction.

The FAA rejected the Airport's interim Airport Facilities Diagram proposal. The FAA cited concerns that the issuance of multiple Airport Facilities Diagrams and chart publication diagrams in a short time frame might be confusing and susceptible to errors in getting proper diagrams in the correct charting/publication schedules. The FAA also raised the possibility that construction schedules might not be achieved for taxiway A7 and the removal of old taxiways.

The FAA discretionary decision was that the Airport Facilities Diagram and chart publications would depict the ultimate final runway and taxiway configurations. The differences would then be addressed by Airport issued NOTAMS.

The decision was to retain the Taxiway A designation as a replacement for the old Taxiway A5 connector to Runway 22. The reason for this decision was that airport users were already familiar with using "Taxiway A" for access to the Runway 22 threshold.

The FAA decisions made during the teleconference were then discussed with the Blue Grass Airport Part 139 Certification Office who agreed to the proposed plans and designations.

The updated Airport Facilities Diagram drawing and Airport Master Record (FAA Form 5010) were submitted to the FAA Memphis Airports District Office on June 21, 2006. The Airport expected that the August 3, 2006, publications for the airport and the instrument procedure charts would reflect the information which had been provided to the FAA. Subsequently, the NTSB learned on August 28, 2006, that this data had been provided to Jeppesen by the NFDC on June 23, 2006. However, according to Jeppesen, a software error was responsible for the data not being reported out for the publication cycle.

On July 28, 2006, the Airport learned from industry sources that the chart information and the revised diagram for the Runway 4 ILS SIAP that had been provided to the FAA were not included in the respective charts that were to be published on August 3, 2006. The Airport had not been notified by the FAA of this decision.

The Airport staff immediately contacted various FAA offices to determine why the correct and submitted data was not being published as agreed, and to discuss the potential repercussions to the project schedule, ILS approaches, project cost, and possible courses of action.

On August 4, 2006, the Airport was finally notified by the FAA for the reason the SIAP data, that had been provided from the flight check on June 9, 2006, had been pulled from the publication cycle. The first reason was that one of the "fix"

points in the SIAP was an en route fix. This fact had not been noted by the FAA during prior coordination meetings with ANI 320 and 380. The Airport was told by the FAA that an assumption had been made that the new SIAP for the Runway 4 ILS was a local procedure. The FAA then stated that flight check data for the development of an en route SIAP procedure must be submitted 2 to 3 weeks earlier than the deadlines that had originally been established for the Airport by the FAA. The Airport had met the original deadlines. Since the next chart publication date was September 28, 2006, the FAA stated that the FAA would issue the revised SIAP for the Runway 4 ILS by NOTAM effective August 20, 2006, upon the re-opening of the runway on that date.

SUMMARY

On August 3, 2006, a new Airport Facilities Diagram was published by the FAA depicting the ultimate runway and taxiway configuration. At the same time, the new SIAP charts and the new Jeppesen diagram of the airport were not published. The consequence was the existence of an Airport Facilities Diagram depicting the ultimate runway and taxiway configuration and a Jeppesen chart depicting the old or pre-August 20, 2006, airport configuration.

At no time between August 3, 2006, and August 27, 2006, was the Airport made aware of any concerns or comments from Lexington Air Traffic Control staff or from any airport tenants or pilot/airline users about any possible confusion caused by any discrepancies between the Airport Facilities Diagram and the actual airport configuration. In fact, the Jeppesen charts and diagram accurately depicted the airport configuration until August 20, 2006. On that date, and at the airport's request, the FAA issued NOTAM A 1682 which stated "T/W A closed north of R/W 26". This NOTAM reflected the difference between the actual airfield configuration and the then current Jeppesen diagram. The NOTAM had also been discussed with the FAA during the June 19 and 20, 2006, teleconferences.

Upon publication of the new Jeppesen charts on September 8, 2006, which also depicted the ultimate runway and taxiway configurations, the Airport consulted with the appropriate FAA offices and agreed to issue the following NOTAM: "T/W A7 closed (under construction) use temporary T/W A North of R/W 26 for approach end of R/W 22 access." This NOTAM was effective until taxiway A7 construction is completed.

Throughout the entire construction schedule for the Runway 4-22 Safety Area Improvement Project, the Airport worked closely with the FAA and met every milestone for information and data delivery. During the entire period, the Airport was in compliance with applicable safety standards and certification requirements and was subjected to regular inspections by the FAA. The Airport had fully expected that the correct information would be published on the appropriate charts and documents on August 3, 2006, and had provided the FAA

the flight check data for the new Runway 4 SIAP on June 9, 2006, and the data for the AFD on June 21, 2006.

The decision not to publish the charts and diagrams depicting the Blue Grass Airport as it actually existed was a unilateral decision made by the FAA for various reasons, coupled with the failure of Jeppesen to publish the data the Airport had provided the FAA on June 9 and June 21, 2006. However, despite the differences that existed between the Airport Facilities Diagram and some of the charts that existed on August 3, 2006, there was no unsafe situation created, and there were no reports of instances where pilots, controllers, airlines or other airport users were confused or misled. In fact, according to the Official Airline Guide, about 55 daily airline Part 121 flights used Runway 4-22 from the time of issuance of the August 20, 2006, NOTAM until the time of the accident on August 27, 2006. This daily number included approximately eight departures during conditions of darkness. Consequently, during the time period that the NOTAM was in effect, about 330 Part 121 flights used Runway 4-22 including approximately 48 departures in conditions of darkness. All of these flights operated at the Blue Grass Airport without any reports of confusion or difficulty. These numbers do not include Part 135 or Part 91 day and night departures from Runway 4-22 during the week the NOTAM was in effect.

The Airport issued NOTAM A 1682 on August 20, 2006, which provided correct information to supplement the existing airport charts and diagrams. This NOTAM was provided to the appropriate FAA offices, including the Lexington Air Traffic Control Tower and also to all airport tenants including COMAIR.