

**U.S. Department of Transportation
Federal Aviation Administration
Section 804 Collaborative Workgroup**



**FAA National Facilities Realignment and
Consolidation Report
Year 1, Part 1 Recommendations**

Response to U.S. Congress

FAA Reauthorization Bill

Public Law 112-095

Section 804

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Executive Summary

The Federal Aviation Administration (FAA) formed a collaborative workgroup of representatives from the FAA and National Air Traffic Controllers Association (NATCA) and the Professional Aviation Safety Specialists (PASS) Labor Unions to develop a comprehensive process to analyze different realignment and consolidation scenarios. Incorporating input from stakeholders, the workgroup evaluated the following scenarios for potential realignments and consolidations:

1. The Cape (K90) Terminal Radar Approach Control (TRACON) facility for realignment to Providence (PVD) Tower / TRACON or to Boston (A90) Consolidated TRACON
2. The Abilene (ABI) TRACON operation for potential realignment to Lubbock (LBB) Tower / TRACON, Midland (MAF) Tower / TRACON, Oklahoma City (OKC) Tower / TRACON, Dallas-Fort Worth (D10) TRACON, or the modification of ABI to accommodate a permanent TRACON operation

Upon conducting analysis and applying the agreed-upon process, the workgroup recommends realigning K90 operations to A90. Pursuant to Section 804 of the statute, realignment to A90 would provide the greatest financial savings to the FAA and would accelerate transition to NextGen-enabling automation for the K90 airspace, without adversely affecting safety.

The FAA, NATCA and PASS collaboratively recommend maintaining ABI as a combined tower TRACON facility in a Terminal Radar Approach in Tower Cab (TRACAB) configuration. Pursuant to Section 804 statute, this alternative may facilitate transition to NextGen for ABI operation with the lowest life cycle cost impact to the FAA.

Introduction

Section 804 of the FAA Modernization and Reform Act of 2012 (Public Law 112-95) requires the FAA to develop a plan for realigning and consolidating facilities in an effort to support the transition to NextGen and reduce capital costs where such cost reductions can be implemented without adversely affecting safety. In order to address Section 804 requirements, the FAA formed a collaborative workgroup of FAA, NATCA, and PASS representatives who developed a comprehensive process that incorporates input from industry stakeholders. The workgroup produced and shared its initial realignment recommendations for the first two TRACON facilities with the FAA Administrator.

The FAA is focused on addressing a number of competing priorities. To respond to continuously changing requirements and effectively manage the Nation's critical infrastructure, the FAA developed the first Facilities Realignment and Consolidation Report. The FAA is publishing this report in the Federal Register for 45 days for public comment.

The collaborative process takes into account the following factors and criteria when prioritizing facilities for realignment analysis:

- NextGen readiness
- Terminal Automation program schedule
- Operational and airspace factors
- Existing facility conditions and workforce needs
- Industry stakeholder input
- Costs and benefits associated with each potential realignment alternative

The FAA continually improves its facility realignment analysis processes by collaborating with Labor Unions and industry stakeholders in conducting the analysis and developing its recommendations.

Report Scope

This report comprises the analyses of two realignment scenarios studied by the collaborative workgroup during the first part of the first year of analysis, pursuant to Section 804 requirements. The recommendations for the remaining realignment scenarios are still in the evaluation process and will be submitted in a separate report.

The FAA Section 804 process and approach serves as the platform for analyzing air traffic control (ATC) facilities for potential realignments. The FAA is focusing on TRACON facilities first, as they comprise the majority of non-tower ATC facilities in the National Airspace System (NAS). In the future, the process may be adapted to include realignment analysis of the FAA's larger operational facilities, however at this time the FAA does not have the necessary funds or planning capacity to consider these facilities for realignments or consolidations.

The recommendations contained in this report were developed by the Section 804 collaborative workgroup, which was chartered by the FAA Administrator and acted as the designee in conducting in-depth analysis. In compliance with Section 804 statutory requirements, the recommendations were developed in coordination with the FAA's Chief NextGen Officer and the Chief Operating Officer of the Air Traffic Operation (ATO).

Section 804 Collaborative Workgroup

The Section 804 collaborative workgroup was established in September 2013. Comprised of FAA and Labor Union representatives from NATCA and PASS, the workgroup developed a process and criteria for evaluating existing TRACON ATC facilities and capturing both recommendations as well as next steps. The guiding principles defined by the workgroup will continue to support the FAA's goal of developing operationally-viable scenarios for realignments and consolidations. Additionally, the Section 804 collaborative workgroup coordinated with the FAA Terminal Automation Modernization and Replacement (TAMR) program and provides these and other stakeholders with regular updates on its progress and project schedules.

The FAA has taken a holistic approach to realignment analysis by including Labor Unions and Subject Matter Experts (SMEs) in developing both the process and recommendations for facility realignments.

The collaborative workgroup has developed a repeatable and defensible process to meet Section 804 requirements.

In 2014, the collaborative workgroup initiated activities to

- Evaluate existing TRACON facilities inventory and prioritize for annual analysis
- Develop an initial set of realignment scenarios and develop a set of alternatives for each scenario
- Collect facility and operational data, and document system requirements
- Document facility, equipment, infrastructure, operational and safety data
- Capture qualitative workforce considerations, including training, transition, facility, and potential workforce impacts of potential realignments
- Consider potential impacts on operations, airspace modifications, route/fixes changes, arrival/departure procedures, intra/inter-facility coordination, and pilot community interaction
- Collect and consider industry stakeholder inputs
- Document and quantify benefits & cost of potential realignments
- Develop a recommendation for each realignment scenario

The four-step process developed by the Section 804 collaborative workgroup is outlined in Figure 1 below.

Figure 1: Section 804 High-Level Overview



Air Traffic Facilities Realignment Analysis

The four-step process to develop potential terminal facility realignment scenarios is executed by a collaborative group and is overseen by FAA and Labor Union leadership. The responsibilities of each group are clearly defined, with intended outcomes and decisions outlined prior to initiation of the work.

The FAA ensured that realignment and consolidation recommendations developed as a result of this effort provide one or more of the following outcomes:

- Facilitate transition to NextGen
- Enable operational improvements
- Improve facility conditions
- Maintain or improve operational safety and ensure service resilience
- Prioritize current and future investments
- Engage employees and key stakeholders in pre-decisional assessments

Administrator's Recommendations

The following sections provide the detail, rationale, and explanation of recommendations developed by the FAA in collaboration with Labor Unions.

Per Section 804 statutory requirements, the FAA is providing the details for each recommendation and the justification that supports the decision.

Recommendation #1: Realign Cape TRACON (K90) Operations to Boston Consolidated TRACON (A90)

Approach

The Section 804 collaborative workgroup, with input from stakeholders, evaluated the Cape (K90) TRACON facility for realignment to Providence (PVD) Tower / TRACON or to Boston (A90) Consolidated TRACON. PVD and A90 facilities were identified as NextGen-ready realignment candidates, and compared with the base case of sustaining and maintaining K90 operations at the current location.

In accordance with Section 804 statutory requirements, the K90 realignment alternatives were developed with the focus on supporting the transition to NextGen and reducing capital costs, without adversely affecting safety. The alternatives were evaluated against a legacy or reference case, representing what the FAA would do in the absence of any realignment.

To evaluate the alternatives, the workgroup conducted site surveys at K90, PVD, and A90; held sessions with facility management and Labor Union representatives; and assessed airspace, equipment, facility, operational, and safety factors for each alternative. The following aspects of each alternative in the K90 scenario were evaluated: equipment limitations, transition and integration complexity, safety and operational impacts, physical infrastructure, and qualitative and quantitative workforce considerations. The findings were fully documented and served as the basis for subsequent business case analysis.

Background

The K90 facility was constructed in 1949 and is 65 years old as of December 2014. It is a single-story concrete masonry unit building owned by the Department of Defense (DOD) and maintained and operated by the FAA. The facility is located in Falmouth, MA, on the Joint Base Cape Cod, formerly known as Otis Air National Guard Base.

The TRACON building has visible breaches in structural integrity and the utility infrastructure is degraded. The equipment rooms at K90 have asbestos floor tiles, requiring abatement when new racks need to be installed.

K90 is scheduled to receive the NextGen-enabling STARS ELITE capability in 2017.

Recommendation

Upon conducting analysis and applying the agreed-upon process, the workgroup recommends realigning K90 to A90. Pursuant to Section 804 of the statute, realignment to A90 would provide

financial benefit to the Agency and would accelerate transition to NextGen-enabling automation for the K90 airspace, without adversely affecting safety.

The justification and the summary of analysis are presented in the sections below.

Administrator's Justification

A90 is a NextGen-ready facility built to current design and safety standards, with ample space and existing capacity to accommodate K90 operations. K90 and A90 have contiguous airspace, and the currently existing complexity between K90 and A90 air traffic can be reduced by merging the airspace between these two facilities. With airspace redesign, operational benefits such as reductions in boundary coordination could improve airspace inefficiencies. In addition, A90 operates a traffic management unit (TMU) that tracks air traffic flows, which is beneficial to the region and could further improve K90 operations. Full integration of operations, including the Manchester sector at A90, may result in additional staffing efficiencies.

Alternatively, realignment of K90 to PVD would require additional physical construction and facility modification, as well as the acquisition of additional STARS equipment. If realigned to PVD, K90 controllers would need to receive Tower training at the FAA Academy in Oklahoma City (OKC), further increasing the costs of this alternative.

The K90 workforce, including management and Labor, indicated support of the potential realignment of K90 to A90. Workforce impact considerations, future staffing, and training requirements were captured, then documented in detail by the Section 804 collaborative workgroup.

Projected Costs and Savings

The business case is a product of the assumptions and data identified by the facilities and external stakeholders during the collaborative process. The K90 business case indicates that both realignment alternatives provide a positive return-on-investment, though the business case for the realignment of K90 into A90 is better than the case for the realignment of K90 into PVD. The upfront investment costs are greater in the PVD realignment option than the A90 option because three additional STARS workstations must be acquired at PVD. However, for both cases, the upfront costs are offset by the cost of reconstructing K90 in the Legacy Case.

It is important to note the business case analysis is highly sensitive to the assumptions made when estimating controller and technician salaries. The potential for staffing scheduling efficiencies is slightly greater at A90 than PVD because it has more air traffic positions and a larger controller pool. However, overall personnel costs increase in both realignment options because controllers transitioning from K90 are upgraded to ATC level 8 at PVD and ATC level 11 at A90. Other minor differences in costs are related to modernization and sustainment, technical refresh, and training, but they are not major cost differentiators. Figure 2 below provides additional details on the K90 business case.

Figure 2: K90 Business Case

	Alternatives		
	Legacy: Mod / Sustain K90	Realign K90 to PVD	Realign K90 to A90
Cost Summary (Risk Adjusted, Then-Year \$K)			
Investment F&E Total	\$37,276	\$11,893	\$6,224
Indirect F&E Total	\$463,765	\$467,023	\$464,524
O&M Total	\$1,199,019	\$1,203,946	\$1,215,496
Economic Analysis Summary (Risk Adjusted, Present Value \$K)			
Realignment Costs		\$48,514	\$50,183
Cost Savings/Avoidance		\$55,889	\$61,541
Net Present Value (NPV)		\$7,374.5	\$11,357.6
B/C Ratio		1.152	1.226

Proposed Timing for Implementation

The implementation of the FAA's recommendation for K90 is subject to existing Labor and FAA contracts, policies, and regulations, including the current requirement for a 12-month notification to the workforce, as well as funding and resource availability. If not disapproved by Congress, and upon project initiation, the FAA estimates an approximate one-year implementation period, which is the timeframe between project initiation and operational handoff. The FAA currently plans to notify the workforce in 2015, begin implementation in 2016, and conduct operational handoff in 2017.

Recommendation #2: Maintain ABI TRACON in a TRACAB Configuration

Approach

The Section 804 collaborative workgroup, with input from stakeholders, evaluated the Abilene (ABI) TRACON operation for potential realignment to Lubbock (LBB) Tower / TRACON, Midland (MAF) Tower / TRACON, Oklahoma City (OKC) Tower / TRACON, Dallas-Fort Worth (D10) TRACON, or modification of ABI to accommodate a permanent TRACON operation. Potential receiver sites were identified based on existing NextGen-enabling capabilities, proximity, and airspace considerations.

Background

Currently, the new ABI Airport Traffic Control Tower (ATCT) base building is occupied by non-air traffic personnel and lacks operational space. The ABI workforce operates radar from either a mobile trailer unit located near the base building, or from a display in the ATCT.

To evaluate each realignment alternative the Section 804 workgroup conducted site surveys at the ABI, LBB, MAF, OKC and D10 TRACONs. Discussions were held with facility management, Labor Union representatives, and external stakeholders. The workgroup evaluated potential airspace and operational impacts, physical infrastructure, equipment, safety factors, workforce considerations, and transition and integration complexity. During Step 2 of the process, the D10 facility was eliminated from consideration as the addition of ABI operations would aggravate the current staffing and training challenges already present at D10. This could add strain to the operation and result in safety implications. The decision to remove the D10 facility was made collaboratively through discussions with the management and workforce of both ABI and D10 facilities.

The remaining realignment alternatives were compared to accommodating the ABI TRACON operation at its current location, by either adding a new TRACON wing or collocating the TRACON operation with the ABI ATCT operation.

Recommendation

After collecting qualitative and quantitative data and conducting analysis using the collaboratively agreed-upon process, the workgroup recommends maintaining ABI as a combined tower TRACON facility in a TRACAB configuration. Pursuant to the Section 804 statute, this alternative may facilitate transition to NextGen for the ABI operation with the lowest life cycle cost impact to the FAA. The justification, analysis, and projected timeline for implementation are presented below.

Administrator's Justification

The operational benefits and efficiencies typically projected for realignments are not present for any alternatives in the ABI scenario given that the potential receiving facilities are geographically

distant and all but one do not have contiguous airspace with ABI. The workgroup noted that representatives from Dyess Air Force Base (DYS), a major ABI stakeholder, voiced concerns regarding the potential for negative impacts to their operations if ABI TRACON operations were realigned to a geographically distant facility. The perceived loss of local knowledge is a critical point of concern for DHS and other external stakeholders. Representatives from DHS provided a detailed perspective of their strong and collaborative relationship with ABI. The ABI and DHS controllers interact regularly, and the DHS trainees spend a considerable amount of time at the ABI TRACON for familiarization purposes.

The ABI workforce, including both management and Labor, indicated support of the potential maintenance of the ABI TRACAB. Additional workforce impact considerations, future staffing, training requirements, and the concerns of representatives from DHS were captured, documented, and considered by the Section 804 workgroup in its decision-making.

The recommended option is expected to achieve the objectives of Section 804 while minimizing disruption to the current system and the workforce.

Projected Costs and Savings

The business case is a product of the assumptions and data identified by the facilities and external stakeholders during the collaborative process. The ABI realignment business case analysis indicates that all realignment alternatives provide a positive return-on-investment and a positive business case in comparison to the alternative of adding a new TRACON wing at ABI.

However, the business case for the ABI TRACAB alternative is significantly better than the others. While the TRACAB option would incur higher upfront costs to acquire STARS NextGen-enabling equipment and set up the TRACON operation in the ATCT, the FAA would avoid costs associated with facility level increases, transition activities, and Permanent Change of Station (PCS). Figure 3 below provides additional details on the ABI business case.

Figure 3: ABI Business Case

	Alternatives				
	Legacy: Construct ABI TRACON Wing	ABI TRACAB	Realign ABI to LBB	Realign ABI to MAF	Realign ABI to OKC
Cost Summary (Risk Adjusted, Then-Year \$K)					
Investment F&E Total	\$10,945	\$4,402	\$2,907	\$3,261	\$3,398
Indirect F&E Total	\$315,345	\$314,631	\$311,826	\$312,105	\$312,105
O&M Total	\$974,386	\$974,197	\$978,366	\$981,645	\$986,636
Economic Analysis Summary (Risk Adjusted, Present Value \$K)					
Realignment Costs		\$4,104	\$17,680	\$19,541	\$19,294
Cost Savings/Avoidance		\$11,007	\$24,529	\$23,553	\$19,937
Net Present Value (NPV)		\$6,903.6	\$6,848.5	\$4,012.3	\$643.2
B/C Ratio		2.682	1.387	1.205	1.033

Proposed Timing for Implementation

The implementation of facility realignments and staff moves are subject to current Labor and FAA contracts, policies, and regulations, including the current requirement for a 12-month advance notification to the workforce. The FAA currently plans to notify the workforce of the recommendation in 2015, initiate project implementation in 2016, and install STARS ELITE in 2018. Implementation of the recommended alternative and installation of the NextGen-enabling STARS ELITE automation platform is contingent on funding and resource availability.

Conclusion

The realignment recommendations outlined in the Year 1 Part 1 report are the result of a collaborative process that involved a multi-disciplinary team of FAA headquarters, field, finance, Labor, and leadership participants. This repeatable and defensible process is a stable foundation for all future realignment analyses and recommendations which will come in future reports. The process aims to maximize operational, administrative, and maintenance efficiencies and deliver the highest value to stakeholders. Through continuous analysis and assessment of facilities through this process, the FAA supports its goal of ensuring safe and secure operations across the nation.

The FAA's success in conducting realignment analysis, continuing to develop realignment recommendations, and implementing those realignments is contingent upon stable multi-year funding and continued collaboration with key stakeholders and Labor Unions.

Federal Register Publication

The FAA is submitting the National Facilities Realignment and Consolidation Report - Year 1 Part 1 Recommendations to the Federal Register for public review and comment. This report can be viewed on the Federal Register docket and on the FAA website. After the 45-day public comment period and the 60-day comment review period, the FAA will submit the final report to Congress, with the collected public comments.