

**U.S. Department of Transportation (DOT)
Federal Aviation Administration (FAA)**



Section 804 Collaborative Workgroup

**FAA National Facilities Realignment and
Consolidation Report
Part 3 Recommendations**

Response to U.S. Congress

FAA Reauthorization Bill

Public Law 112-95

Section 804

Draft Date: June 28, 2017

Contents

Executive Summary	1
Introduction.....	2
Section 804 Collaborative Workgroup	2
Four-Step Process for Facilities Realignment Analysis.....	3
Report Scope.....	4
Analysis Scenarios	4
FAA Administrator’s Recommendations	5
Recommendation #1: Realign Peoria, IL (PIA) and Springfield, IL (SPI) TRACON Operations to St. Louis, MO (T75) TRACON	5
Background.....	5
Approach	5
Recommendation and Administrator’s Justification	6
Projected Costs and Savings.....	7
Recommendation #2: Realign Pasco, WA (PSC) TRACON Operations to Spokane, WA (GEG) TRACON.....	8
Background.....	8
Approach	8
Recommendation and Administrator’s Justification	8
Projected Costs and Savings.....	9
Proposed Timing for Implementation of Recommendations.....	11
Federal Register Publication.....	11
Conclusion	11

Executive Summary

Pursuant to Section 804 of the FAA Modernization and Reform Act of 2012 (P.L. 112-95), a collaborative workgroup of representatives from the Federal Aviation Administration (FAA), the National Air Traffic Controllers Association (NATCA) and the Professional Aviation Safety Specialists (PASS) labor unions was established to analyze the FAA's Terminal Radar Approach Control (TRACON) facilities for realignment.

The Section 804 collaborative workgroup conducts ongoing analysis of FAA Air Traffic Control facilities by gathering and reviewing operational and technical requirements for facilities undergoing analysis, considering existing Agency assets and inventory, considering workforce impacts, gathering and evaluating stakeholder input, and estimating costs and benefits of potential realignments.

The workgroup developed, validated, and presented its realignment recommendations to FAA and labor union leadership, and drafted this report for the FAA Administrator's review and submission to the Federal Register and Congress.

The following recommendations are contained in this report:

1. Realign Peoria, IL (PIA) and Springfield, IL (SPI) TRACON operations to St. Louis, MO (T75) TRACON
2. Realign Pasco, WA (PSC) TRACON operations to Spokane, WA (GEG) TRACON

Per statutory requirements, the justification and details for the collaboratively-developed recommendations are provided in the sections below.

Introduction

Section 804 of the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 (P.L. 112-95) requires the FAA to develop a plan for realigning and consolidating facilities and services in an effort to support the transition to NextGen, and to reduce capital, operating, maintenance, and administrative costs, where such cost reductions can be implemented without adversely affecting safety.

To comply with Section 804 requirements, the FAA formed a collaborative workgroup with the National Air Traffic Controllers Association (NATCA) and the Professional Aviation Safety Specialists (PASS) labor unions. The workgroup developed a comprehensive process for facilities and service realignment analysis, and was chartered to conduct the analysis and to develop recommendations, taking the following factors into consideration:

- NextGen readiness of facilities
- Terminal Automation Modernization and Replacement (TAMR) program schedule
- Operational and airspace factors
- Existing facility conditions
- Existing Agency assets
- Workforce impacts
- Industry stakeholder input
- Costs and benefits associated with each potential realignment alternative
- Facilities and engineering planning and priorities
- Employee career development

Per statutory requirements, the workgroup develops realignment recommendations in coordination with the FAA's Chief NextGen Officer and the Chief Operating Officer of the Air Traffic Organization (ATO), and the FAA Administrator approves all recommendations.

Section 804 Collaborative Workgroup

The Section 804 collaborative workgroup developed the criteria and guiding principles for evaluating and analyzing existing Terminal Radar Approach Control (TRACON) operations, capturing recommendations, and outlining next steps.

The workgroup developed a repeatable and defensible process to:

- Evaluate facility TRACON operations and prioritize for analysis
- Determine 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/fix changes, arrival/departure procedures, intra/inter-facility coordination, and pilot community interaction
- Collect and consider industry stakeholder input
- Quantify benefits and cost of potential realignments
- Develop a recommendation for each realignment scenario

Four-Step Process for Facilities Realignment Analysis

The four steps of the process developed by the workgroup are outlined below:



Section 804 Four-Step Process for Facilities Realignment Analysis

The process serves as the platform for analyzing Air Traffic Control (ATC) facilities and services for potential realignments. To evaluate the realignment scenarios, the workgroup conducts working sessions at FAA headquarters, followed by site surveys at all facilities under analysis. At each facility, the workgroup leadership facilitates sessions with facility management, labor representatives, and stakeholders. Stakeholders are briefed on the process, and meetings are held to answer questions and collect input.

The workgroup's technical and operational experts evaluate the airspace, equipment, facility, operational, and safety factors for each alternative in the analysis, and document the findings in Systems Analysis and Requirements Documents (SARDs), which serve as the basis for subsequent business case analysis. The workgroup captures, documents, and reviews workforce impact considerations, and future staffing and training requirements prior to making recommendations.

Throughout each step of the analysis, the workgroup interfaces with multiple FAA programs and organizations to fully inform its analysis and provide regular updates. The workgroup continually improves its processes by reviewing lessons learned from previous realignments, eliciting feedback from the facilities undergoing analysis, and refining working activities.

Realignment recommendations resulting from the four-step process are developed to:

- Maintain or improve operational safety and ensure service resilience
- Facilitate the transition to NextGen

- Enable operational improvements
- Improve facility conditions
- Prioritize current and future investments
- Utilize agency assets more effectively
- Enhance controller proficiency
- Enhance career development and training opportunities

The workgroup operates in conjunction with the agency's NextGen deployment initiatives. It focuses on smaller TRACON facilities and operations. In the future, the process and analysis may be adapted to include the FAA's larger ATC facilities. However, at this time, the FAA does not have the necessary funds or planning capacity to consider these facilities for realignments or consolidations.

Report Scope

This report contains the details and results of analyzing seven TRACON facilities (three potential transfers and four potential receivers), which were identified for analysis using the collaboratively-developed process and criteria.

Analysis Scenarios

Initial analysis conducted by the workgroup encompassed TRACON facilities in the following scenarios:

- Realign Peoria, IL (PIA) TRACON operations and Springfield, IL (SPI) TRACON operations to St. Louis, MO (T75) TRACON or Chicago, IL (C90) TRACON, or sustain/maintain TRACON operations at the current sites
- Realign Pasco, WA (PSC) TRACON operations to Spokane, WA (GEG) TRACON or Portland, OR (P80) TRACON, or sustain/maintain TRACON operations at the current site
- Realign Grant County, WA (MWH) TRACON operations to Spokane, WA (GEG) TRACON or Seattle, WA (S46) TRACON, or sustain/maintain TRACON operations at the current site
- Realign Charleston, SC (CHS) TRACON operations to Myrtle Beach, SC (MYR) TRACON or Savannah, GA (SAV) TRACON, or sustain/maintain TRACON operations at the current site

Throughout the Section 804 analysis process, there are multiple decision points where the workgroup assesses each scenario and alternative for continuation in or removal from the process. Thus, some of the facilities listed above were removed from analysis. These facilities may be studied further in the future.

FAA Administrator's Recommendations

In conformance with the requirements established by Congress in Section 804 of P.L. 112-95, the following realignment recommendations are proposed:

1. Realign PIA and SPI TRACON operations to T75 TRACON
2. Realign PSC TRACON operations to GEG TRACON

Details for both realignment recommendations are provided in the sections below.

Recommendation #1: Realign Peoria, IL (PIA) and Springfield, IL (SPI) TRACON Operations to St. Louis, MO (T75) TRACON

The Section 804 workgroup evaluated Peoria (PIA) and Springfield (SPI) TRACON operations for realignment to St. Louis (T75) TRACON or Chicago (C90) TRACON.

Background

PIA Tower/TRACON was constructed in 1950. It is owned and maintained by the airport authority and leased by the FAA. PIA is an ATC level 6 facility and it operates 24 hours a day. PIA TRACON operations in Calendar Year (CY) 2015 were 72,727¹.

SPI Tower/TRACON was constructed in 1980. It is owned and maintained by the FAA. SPI is an ATC level 5 facility and the hours of operations are 0600-2200. SPI TRACON operations in CY 2015 were 40,530.

T75 TRACON was constructed in 2002. It is owned and maintained by the FAA. T75 is an ATC level 9 facility and it operates 24 hours a day. T75 TRACON operations in CY 2015 were 303,254. T75 is sufficiently sized to accommodate PIA and SPI TRACON operations.

C90 TRACON was constructed in 1996. It is owned and maintained by the FAA. C90 is an ATC level 12 facility and it operates 24 hours a day. C90 TRACON operations in CY 2015 were 1,248,503. C90 is sufficiently sized to accommodate PIA and SPI TRACON operations.

Approach

The workgroup conducted a working session at FAA headquarters with representatives from the potential transfer and receiver facilities, followed by stakeholder meetings and site surveys at PIA, SPI, T75, and C90.

Following the working session and the site surveys, C90 was removed from further consideration as a potential receiver. This decision was based on the following factors:

- Expected negative business case
- Lack of operational synergies
- Non-contiguous airspace
- Air traffic complexity and training considerations
- Service limitations

¹ FAA Air Traffic Activity System (ATADS) was the source for all CY 2015 facility traffic counts quoted throughout this document.

Additional analysis indicated significant costs due to increases in facility level pay and locality pay. Preliminary calculations indicated an NPV of negative \$14.5M for realignment to C90, as compared to an NPV of positive \$16M for realignment to T75.

The decision to remove C90 as a receiver for this scenario was communicated to the facilities involved, and analysis of C90 was discontinued. No formal business case analysis for any alternative with C90 as a receiver facility was conducted.

Recommendation and Administrator's Justification

Upon applying the agreed-upon process and analysis, the workgroup recommends realigning TRACON operations from PIA and SPI to T75 TRACON. Consistent with Congressional direction, the realignment is expected to support the transition to NextGen and result in operational efficiencies and other benefits.

Based on the data collected in the working session, workforce impacts discussions, and site surveys, the workgroup believes that realigning PIA and SPI TRACON operations to T75 TRACON may increase retention of the less-tenured workforce in the area. The lower level facilities within the NAS with slower air traffic, such as PIA and SPI, are traditionally difficult to staff and may experience significant attrition. Reductions in attrition may help retain local knowledge, which the workforce and stakeholders deem important. Realigning the TRACON operations to a larger, newer facility, such as T75, may diversify staff experience and encourage them to remain at the same facility for a longer duration.

Realignment of PIA and SPI TRACON operations to T75 TRACON may improve coordination between Kansas City Air Route Traffic Control Center (ARTCC) (ZKC) and post-realignment T75. Additional efficiencies may be gained for ZKC arrivals and departures. Additionally, realignment may improve coordination with Scott Air Force Base.

Based on the preliminary analysis conducted at T75, TRACON operations from PIA, SPI, and T75 may be conducted from just two RADAR positions during the midnight shift. This may create the opportunity to provide 24-hour approach services to the entire airspace, further enhancing service.

The realignments will allow the newer T75 facility to be used more efficiently. After realignment, employees at PIA and SPI who are currently working in aging facilities will operate in a NextGen-enabled state-of-the-art facility that meets current standards and building codes.

The PIA Tower/TRACON building replacement is an ongoing FAA facilities project. The design phase for the new PIA Tower is near completion. If PIA TRACON operations are approved for realignment, the design would continue for PIA Tower but the need for a TRACON replacement would be negated resulting in a reduced footprint and additional cost savings. If TRACON operations are not realigned, the automation in PIA TRACON would need to be brought up to full compliance with NextGen initiatives. A temporary modular expansion of the equipment room may be required to accommodate necessary equipment, increasing footprint and resulting in additional costs to the agency.

The consolidated T75 TRACON is expected to continue providing the same of level of service and coordination as currently provided at the individual PIA, SPI, and T75 TRACONs. Realignment is not expected to result in deterioration of service or negatively impact national security.

Projected Costs and Savings

The PIA and SPI business case indicates that realignment of PIA and SPI TRACON operations to T75 TRACON provides a positive return-on-investment with a benefit-to-cost (B/C) ratio of 1.3, and a Net Present Value (NPV) of \$16M, given the analytical timeframe of 2016 to 2034. A B/C ratio of 1 or above is considered positive. Costs have been risk-adjusted to the 80% confidence level in accordance with FAA and OMB guidance.

The PIA facility is currently scheduled for replacement. Thus, the choices that were compared were strategically realigning PIA into another TRACON versus the costs to plan, manage, construct, equip and maintain a new facility.

Table 1 reflects the costs in Then-Year (budget) dollars. The Investment Facilities & Equipment (F&E) costs are \$46M for the modify/sustain alternative and \$35.7M for the realignment alternative. However, most of these costs are for the PIA Tower/base building, and only \$2.5M is directly attributable to the realignment for planning, training, site preparation, equipment, telecommunications, and decommissioning of the current facility and/or equipment. Most of the remainder of the investment costs are related to the PIA Tower and 9,500 s.f. base building.

Table 2 shows the lifecycle economic comparison of realignment costs to cost savings in realignment alternative, in present value (discounted) dollars. The primary cost drivers of the realignment are additional salary costs to compensate for increased facility levels, transition and training, and employee relocation (Permanent Change of Station entitlements). The primary benefits (cost savings) expected from the realignment are equipment savings, construction cost savings associated with reducing the footprint at PIA, air traffic staffing scheduling efficiencies, and eventual air traffic salary savings due to expected Tower downgrades at PIA and SPI.

Table 1: Cost Summary (Risk Adjusted, Then-Year \$K)

Type	Mod-Sustain	Realign
Investment Facilities & Equipment (F&E) Total	\$ 46,093	\$ 35,773
Indirect F&E Total	\$ 16,668	\$ 5,896
Operations & Maintenance (O&M) Total	\$ 377,306	\$ 379,007

Table 2: Economic Analysis Summary (Risk Adjusted, Present Value \$K)

Type	Realign
Realignment Costs	\$ 47,237
Cost Savings/Avoidance	\$ 63,349
Net Present Value (NPV)	\$ 16,112
Benefit/Cost (B/C) Ratio	1.3

Business Case Summary for PIA and SPI

Note: Table 1 is presented in Then-Year (Budget) Dollars.

Table 2 is presented in Present Value (Discounted) Dollars.²

² The cost summary table lists Then-Year (budget) dollars, which are adjusted for inflation in accordance with OMB guidelines to reflect the actual amount of money that will be required in the year it is needed. The economic analysis summary table lists present-value (discounted) dollars, indicative of the amount that the investment costs today.

Recommendation #2: Realign Pasco, WA (PSC) TRACON Operations to Spokane, WA (GEG) TRACON

The workgroup evaluated Pasco (PSC) TRACON operations for realignment to Spokane (GEG) or Portland (P80)³.

PSC TRACON operates the PSC and Yakima (YKM) airspace; for the purposes of this document, PSC and YKM operations will be known as either “PSC” or “PSC and YKM” interchangeably.

Background

PSC Tower/TRACON was constructed in 1988. It is owned and maintained by the FAA. PSC is an ATC level 6 facility and its hours of operation are 0600-2200. PSC TRACON operations in Calendar Year (CY) 2015 were 56,181.

GEG Tower/TRACON was constructed in 2007. It is owned and maintained by the FAA. GEG is an ATC level 7 facility and it operates 24 hours a day. GEG TRACON operations in CY 2015 were 138,282. GEG is sufficiently sized to receive PSC and YKM TRACON operations.

P80 TRACON was constructed in 1958. It is owned by the Port of Portland and leased by the FAA. P80 is an ATC level 9 facility and it operates 24 hours a day. P80 TRACON operations in CY 2015 were 303,307. P80 is sufficiently sized to receive PSC and YKM TRACON operations, though some reconfiguration of TRACON positions and additional equipment would be required.

Approach

The workgroup conducted a working session at FAA headquarters with representatives from the potential transfer and receiver facilities, followed by stakeholder meetings and site surveys at PSC, P80, and GEG.

Additional telecons were conducted by the workgroup with the PSC facility representatives, both Labor and Agency, to discuss daily operations and additional concerns expressed by facility members and stakeholders.

Recommendation and Administrator’s Justification

Upon applying the agreed-upon process and analysis, the workgroup recommends realigning TRACON operations from PSC to GEG TRACON. Consistent with Congressional direction, the realignment is expected to support the transition to NextGen and result in operational efficiencies and other benefits.

The realignment could create more efficient air routes, improving controller procedures and reducing workload. There is existing pilot / community interaction between PSC and GEG: many aircraft operate between GEG and PSC during Operation Raincheck, which is a pilot protection and survival plan program.

PSC TRACON handles similar aircraft, has similar weather patterns, and is geographically similar to Spokane (GEG). Controllers from PSC expressed familiarity with the city of Spokane and the surrounding area.

³ Concurrently, the workgroup evaluated Grant County (MWH) TRACON operations for realignment to GEG or Seattle (S46). The workgroup is conducting additional analysis on that scenario.

PSC TRACON was constructed in 1988, and is approaching 30 years old. Future building construction would be less costly without a TRACON and would reduce the long-term costs of maintaining the NAS infrastructure.

GEG is one of the agency's newer facilities with redundant power systems, including a facility uninterruptible power supply (UPS) and backup HVAC systems. The operations room at GEG is currently underutilized, with positions available for additional facilities. Realigned employees from PSC would have the opportunity to work in a newer, state-of-the-art, NextGen-enabled facility. The PSC realignment is expected to reduce the number of automation systems in the NAS, allow the Standard Terminal Automation Replacement System (STARS) platform at PSC to be repurposed for future TRACON replacements, and utilize the GEG TRACON more efficiently.

PSC TRACON, which currently operates part-time, may obtain 24-hour approach control services once realigned to GEG. If TRACON operations for PSC airspace become 24-hour, this will potentially enhance user benefits and enhance service.

Historically, PSC has had high controller turnover and high training workload. Realignment to GEG may provide the relocated workforce with enhanced career progression opportunities, and create a more effective training environment through additional levels of complexity and higher traffic volume.

The consolidated GEG TRACON is expected to provide the same level of service and coordination as the status quo. Realignment is not expected to result in deterioration of service or negatively impact national security.

Projected Costs and Savings

The PSC business case analysis indicates that realignment of PSC TRACON operations to GEG provides a positive return-on-investment, with a benefit-to-cost (B/C) ratio of 1.1, and a Net Present Value (NPV) of \$1.1M, given the analytical timeframe of 2016 through 2034. A B/C ratio of 1 or above is considered positive. Costs have been risk adjusted to the 80% confidence level in accordance with FAA and OMB guidance.

Table 3 reflects the costs in Then-Year (budget) dollars. The Investment Facilities & Equipment (F&E) costs are \$4M for the mod/sustain alternative and \$3M for the realignment alternative. The direct Investment F&E costs of the realignment include planning, site preparation, equipment, telecommunications, controller training, and decommissioning of the current facility and equipment.

The quantitative benefits (cost avoidance) of the realignment include equipment cost avoidance and air traffic staffing savings at PSC Tower. Additionally, there is a Tech Ops cost avoidance: a systems specialist I-band promotion, which would occur with the installation of a Standard Terminal Automation Replacement System (STARS) platform in the legacy case, will not take place at the realigned facility.

Table 4 shows the lifecycle economic comparison for the realignment alternative in present value (discounted) dollars.

The primary cost drivers of the realignment are salary increases associated facility level increases for PSC controllers realigning to GEG, cross-training of all controllers on GEG and PSC airspace, additional telecommunications, locality adjustment, and employee relocation (Permanent Change of Station entitlements).

Table 3: Cost Summary (Risk Adjusted, Then-Year \$K)

Type	Mod-Sustain	Realign
Investment Facilities & Equipment (F&E) Total	\$ 4,213	\$ 3,346
Indirect F&E Total	\$ 4,991	\$ 2,409
Operations & Maintenance (O&M) Total	\$ 395,455	\$ 397,985

Table 4: Economic Analysis Summary (Risk Adjusted, Present Value \$K)

Type	Realign
Realignment Costs	\$ 7,485
Cost Savings/Avoidance	\$ 8,560
Net Present Value (NPV)	\$ 1,075
Benefit/Cost (B/C) Ratio	1.1

Business Case Summary for PSC

Note: Table 3 is presented in Then-Year (Budget) Dollars.

Table 4 is presented in Present Value (Discounted) Dollars.⁴

After the PSC business case was presented and approved, the STARS automation platform was delivered to PSC TRACON. At the time of the analysis, it was assumed that the delivery could be avoided, and the system deployed elsewhere. This delivery impacts the business case, resulting in an NPV of -\$649K and a B/C ratio to 0.9.⁵ Realignment of PSC to GEG makes sense for more efficient and safe management of the NAS and ATC facilities. The collaborative workgroup of FAA, NATCA, and PASS believe this realignment to be both beneficial to the NAS and consistent with the direction from Congress.

⁴ The cost summary table lists Then-Year (budget) dollars, which are adjusted for inflation in accordance with OMB guidelines to reflect the actual amount of money that will be required in the year it is needed. The economic analysis summary table lists present-value (discounted) dollars, indicative of the amount the investment costs today.

⁵ These numbers assume that the STARS will be returned to the FAA Depot where it can be repurposed. A small benefit was captured for returning the system.

Proposed Timing for Implementation of Recommendations

The implementation of facility and operational realignments and staff moves are subject to current labor and FAA collective bargaining agreements, which requires notification to the workforce of up to 12 months, as well as other FAA policies, and regulations. The FAA currently plans to notify the workforce of the recommendations in 2017, initiate project implementation in 2018, and begin cutovers in 2019. Implementation of each realignment is contingent on funding and resource availability.

Federal Register Publication

In accordance with Section 804 of P.L. 112-95, the FAA plans to submit the National Facilities Realignment and Consolidation Report, Part 3, to Congress and publish it in the Federal Register for public review and comment. This report will be available for review on the Federal Register docket and the FAA website.

After the 45-day public comment period and subsequent comment review period, the FAA plans to submit the final report to Congress, with collected public comments.

Conclusion

The realignment recommendations outlined in this report are the result of a congressionally directed collaborative process that involved a multi-disciplinary workgroup of representatives from FAA management, labor, field facilities, finance, and subject matter experts. The outcome is consistent with the requirements set out by Congress via Section 804 of P.L. 112-95.

The repeatable and defensible process developed by the workgroup serves as a stable foundation for realignment analyses and recommendations that will be developed in the future. The workgroup will use the process to maximize operational, administrative, and maintenance efficiencies, support transition to NextGen, 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, continued collaboration with labor unions, and coordination with industry stakeholders.