CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

July 11, 2017

H.R. 2997
21st Century Aviation Innovation, Reform, and Reauthorization Act

As ordered reported by the House Committee on Transportation and Infrastructure on June 27, 2017

SUMMARY

H.R. 2997 would establish a federally chartered, not-for-profit corporation (known as the American Air Navigation Services (AANS) Corporation) to assume responsibility for operating the U.S. air traffic control system, a function currently performed by the Federal Aviation Administration (FAA). The proposed corporation would be governed by a 13-member board of directors composed of individuals representing certain aviation stakeholder groups. To finance the costs of providing air traffic services, the bill would authorize the corporation to charge fees to users of such services and to issue debt.

The Secretary of Transportation would manage and oversee the transition of operational control over air traffic services to the proposed corporation, which would occur on October 1, 2020. Until that time, the bill would authorize appropriations for the FAA to continue to operate, maintain, and modernize the air traffic control system and carry out the agency's other traditional responsibilities related to civil aviation. After the proposed transition of all air traffic control-related personnel and programs to the AANS Corporation, the bill would authorize additional appropriations for FAA and the Department of Transportation (DOT) to continue to meet traditional aviation-related responsibilities, such as performing certain regulatory and safety-related activities, making grants to airports to support capital projects, and subsidizing air service to certain rural communities.

Although the proposed corporation would be independent and autonomous, in CBO's view it would effectively act as an agent of the federal government in carrying out a regulatory function. Hence, in keeping with guidance specified by the *1967 President's Commission on Budget Concepts*, the proposed corporation's cash flows should be recorded in the federal budget. More specifically, fees charged by the proposed corporation should be recorded as federal revenues, and its expenditures should be classified as federal direct spending.

On that basis, CBO estimates that enacting H.R. 2997 would:

- Increase net direct spending by $90.7 billion over the 2018-2027 period;

- Increase net revenues by $70.0 billion over the 2018-2027 period;

- Increase net deficits stemming from revenues and direct spending by about $20.7 billion over the 2018-2027 period; and

- Result in discretionary outlays totaling $52.3 billion over the 2018-2027 period, subject to the appropriation of authorized amounts.

Pay-as-you-go procedures apply because enacting the legislation would affect direct spending and revenues. CBO estimates that enacting H.R. 2997 would increase net direct spending and on-budget deficits by more than $5 billion in one or more of the four consecutive 10-year periods beginning in 2028.

The estimated changes in direct spending and revenues under H.R. 2997 reflect CBO's assessment of the budgetary effects of enacting H.R. 2997 as a stand-alone measure. Ultimately, however, the net budgetary impact of activities related to air traffic control under H.R. 2997 would depend on the details of additional legislation that lies beyond the scope of this cost estimate. H.R. 2997 does not address other important aspects of federal activities related to aviation—in particular, provisions of current law that govern aviation-related excise taxes that cover most of the FAA's costs related to air traffic services and other programs. Similarly, although H.R. 2997 authorizes a marked reduction in future appropriations for the FAA that comport with the envisioned transfer of operational control over the air traffic control system to the AANS Corporation, whether subsequent reductions in future discretionary funding for the agency occur would depend on appropriations enacted by future Congresses. As a result, the ultimate net budgetary impact of corporatizing air traffic control under H.R. 2997 could differ considerably from the estimates presented in this analysis, but CBO cannot provide an analysis of such potential impacts because they would depend on the details of future legislation (see the discussion below under the heading "Additional Information").

H.R. 2997 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) on operators of air ambulances. The bill also would preempt state authority over air traffic control services. Based on information from the FAA, public airport operators, and state aviation agencies, CBO estimates that the cost of the mandates on public entities would fall below the annual threshold established in UMRA for intergovernmental mandates ($78 million in 2017, adjusted annually for inflation). The bill would impose additional mandates on private entities including users of air traffic services, air carriers, manufacturers of aircraft, and ticket agents. CBO estimates that the aggregate cost of mandates on private entities would well exceed the annual threshold established in UMRA for private-sector mandates ($156 million in 2017, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effect of H.R. 2997 is shown in the following table. The costs of this legislation fall within budget function 400 (transportation).

TABLE 1. SUMMARY OF ESTIMATED BUDGETARY EFFECTS OF H.R. 2997

	By Fiscal Year, in Billions of Dollars												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2017-2022	2017-2027
INCREASES IN DIRECT SPENDING													
Estimated Budget Authority	0.0	0.2	0.3	0.4	13.1	13.6	14.0	14.4	14.9	15.3	15.7	27.6	102.0
Estimated Outlays	0.0	0.0	0.0	*	9.3	11.6	12.7	13.6	14.1	14.5	15.0	20.8	90.7
INCREASES IN REVENUES													
Estimated Revenues	0.0	0.0	0.0	0.0	9.0	9.3	9.6	10.0	10.3	10.7	11.1	18.3	70.0
NET INCREASE IN THE DEFICIT FROM CHANGES IN DIRECT SPENDING AND REVENUES													
Impact on Deficit	0.0	0.0	0.0	*	0.3	2.3	3.1	3.6	3.8	3.8	3.9	2.6	20.7
INCREASES IN SPENDING SUBJECT TO APPROPRIATION													
Estimated Authorization Level	0.0	13.2	13.5	13.8	2.5	2.5	2.6	0.0	0.0	0.0	0.0	45.6	48.2
Estimated Outlays	0.0	10.5	12.4	13.4	5.0	4.0	3.6	1.2	0.9	0.7	0.7	45.2	52.3

Notes: Components may not sum to totals due to rounding. * = less than $50 million.

Background

The FAA is responsible for most federal activities related to civil aviation under current law. The agency receives funding for most of its programs and activities—operations; maintaining air navigation facilities and equipment; and research, engineering, and development—in annual appropriation acts. The bulk of those funds are used to operate and maintain the air traffic control system. In addition, the FAA receives funding for the Airport Improvement Program (AIP), which makes grants to public-use airports for projects to enhance safety and increase their capacity; that funding is provided in authorization acts as contract authority (a mandatory form of budget authority). Finally, DOT receives annual appropriations to make payments to air carriers to subsidize their costs to provide service to certain small communities.

Historically, the funds for aviation programs come from the general fund of the Treasury and the Airport and Airway Trust Fund. That trust fund is an accounting mechanism in the federal budget that records receipts from certain taxes paid by users of the air transportation system—primarily excise taxes on commercial airline tickets—and spending to cover a portion of the FAA's programs and DOT's payments to air carriers. Annual spending from the fund is not automatically triggered by the collection of tax revenues or transfers of interest earnings but is controlled by annual appropriation acts.

In 2017, CBO estimates, revenues credited to the Airport and Airway Trust Fund will total $15.1 billion, slightly less than the $15.7 billion in new funding provided from the fund for FAA programs and DOT's payments to air carriers. The FAA also received $1 billion in appropriations from the general fund for 2017, bringing total discretionary funding (including appropriations and obligation limitations on AIP contract authority) to $16.6 billion. That amount includes:

- $10.7 billion for the full operating and capital costs of providing air traffic control services (including ancillary support services);

- $3.35 billion for AIP grants to airports;

- $2.4 billion for other FAA activities, particularly those related to regulating the safety of civil aviation; and

- $150 million for DOT to make payments to air carriers that provide service to certain rural communities through the Essential Air Service program.

If discretionary resources for FAA and DOT aviation activities (including obligation limitations) were assumed to remain at the 2017 level adjusted for inflation, CBO projects that discretionary funding would grow to $20.4 billion in 2027. CBO also estimates that, if aviation-related excise taxes credited to the Airport and Airway Trust Fund are extended, they will grow at roughly the same rate as the economy and total $21.3 billion in 2027.[1]

Major Provisions

H.R. 2997 would establish the AANS Corporation, a federally chartered, not-for-profit corporation to assume responsibility for operating the U.S. air traffic control system. A 13-member board of directors (including a board-appointed chief executive officer) would govern the proposed corporation. The Secretary of Transportation would appoint two

1. Under current law, most aviation-related excise taxes that provide funding for federal aviation programs are scheduled to expire after September 30, 2017; however, under rules governing CBO's baseline projections, revenues from excise taxes that are credited to trust funds are assumed to continue in effect beyond their scheduled expiration date.

directors; eight others would be nominated by panels of individuals representing certain aviation stakeholders.[2] Those 10 board members would select two additional "at large" members.

Under H.R. 2997, the corporation would be the only entity authorized to provide air traffic services within U.S. airspace other than the Department of Defense and certain other entities with existing responsibilities. The corporation also would be responsible for maintaining and modernizing the infrastructure and equipment associated with the air traffic control system. To cover the costs of operating and managing that system, the bill would authorize the corporation to charge fees to users of air traffic control services, require users to pay such fees, and specify that the corporation could enforce that requirement in U.S. courts. In addition to funding from user fees, the corporation would be authorized to issue debt to finance its costs. The bill would prohibit the corporation from issuing or selling equity shares in the corporation.

The Secretary of Transportation would manage and oversee the transition of operational control over air traffic services to the proposed corporation, which would occur on October 1, 2020. The bill outlines procedures for identifying the federal personnel to be transferred to the corporation and specifies that certain provisions of laws related to labor-management relations that currently apply to the FAA and its labor organizations would continue to apply to all employees of the new corporation (including individuals hired after the date of transfer). Transferred employees would have the option to retain their existing federal health and retirement benefits or could choose to participate in benefit plans offered by the new corporation.

The bill also would convey to the corporation, for no consideration, any real and personal property (including air navigation facilities), and related licenses, patents, software rights, and other items deemed necessary for providing air traffic services. The conveyance would include access to systems using the dedicated portion of the electromagnetic spectrum used by the FAA to provide air traffic services and data from such systems. Under the bill, ownership of real property at FAA's technical facilities would revert to the federal government if the corporation deemed such property to be no longer needed to provide air traffic services and the Secretary of Transportation determined that a reversion was necessary to protect the national interest. The bill would authorize the corporation to sell other real property (except for certain property located in noncontiguous states) and use the proceeds to make capital investments related to air traffic control infrastructure.

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2. The eight nominating panels established under S. 2997 would represent passenger, cargo, and regional air carriers; noncommercial owners and recreational operators of general aviation; business aviation (including users of general aviation aircraft exclusively to further business interests, aviation-related businesses, and aerospace manufacturers of aircraft and equipment used in general aviation); air traffic controllers; airports; and commercial pilots.

Until fiscal year 2021, when the transfer would occur, the FAA would continue to operate, maintain, and modernize the air traffic control system and carry out the agency's other primary responsibilities related to regulating the safety of civil aviation and providing grants to airports to support capital projects. Starting in 2021, the corporation would assume responsibility for air traffic control. The FAA and DOT would continue to carry out certain activities related to regulating the safety of civil aviation (including air navigation services provided by the corporation), providing AIP grants to airports, and making payments to subsidize air service to rural communities.

Budgetary Treatment of the AANS Corporation

Although the proposed corporation would be independent and autonomous, in CBO's view it would effectively act as an agent of the federal government in carrying out a regulatory function. In particular:

- The AANS Corporation would be the only entity authorized to provide air traffic services within U.S. airspace other than the Department of Defense and certain other entities with existing responsibilities.

- The bill would authorize the corporation to charge fees to users of air traffic control services, require users to pay such fees, and specify that the corporation could enforce that requirement in U.S. courts.

Hence, in keeping with guidance specified by the *1967 President's Commission on Budget Concepts*, the proposed corporation's cash flows should be recorded in the federal budget. Although the report issued by that commission has no legal status, it remains the primary authoritative statement on the scope of the federal budget. The commission recommended that, "the budget should, as a general rule, be comprehensive of the full range of federal activities. Borderline agencies and transactions should be included…unless there are exceptionally persuasive reasons for exclusion."[3]

CBO has adhered to that principle since the Congressional budget process was established.[4] For example, since the 1990s CBO and the Office of Management and Budget have included amounts collected and spent by the Universal Service Fund each year in the federal budget even though the company that manages the fund is not part of the federal government and the charges that telecommunications companies are required to pay do not flow through the U.S. Treasury.

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3. President's Commission on Budget Concepts, *Report of the President's Commission on Budget Concepts* (October 1967), p.25.

4. See Congressional Budget Office, *How CBO Determines Whether to Classify an Activity as Governmental When Estimating Its Budgetary Effects* (June 2017), https://www.cbo.gov/publication/52803.

More specifically, the user fees that would be assessed by the AANS Corporation should be classified as federal revenues, largely because of their compulsory nature. In CBO's view, subsequent spending of such fees, as well as any spending financed by debt issued by the corporation (which would be backed by the entity's authority to set fees at levels necessary to recover its costs and to compel users to pay such fees), should be classified as federal direct spending because that spending would not be contingent on any further legislation.

BASIS OF ESTIMATE

H.R. 2997 would effectively reclassify, from discretionary to mandatory, federal spending related to air traffic control. Broadly speaking, CBO expects that the amount of spending for air traffic control under H.R. 2997 would be similar to the amount of spending for such activities reflected in CBO's baseline projections. In that sense, increases in direct spending for the proposed AANS Corporation would reduce the need for future appropriations to the FAA. However, in CBO's cost estimates for proposed legislation, changes in authorized spending subject to appropriation are not estimated relative to CBO's baseline projections; rather, we report the differences between amounts authorized to be appropriated under proposed legislation and authorization levels specified for future years under current law. Under current law, no authorizations for federal aviation programs are in place beyond 2017.

For this estimate CBO assumes that H.R. 2997 will be enacted early in fiscal year 2018 and that appropriations will be provided as specified by the bill. Estimates of outlays are based on historical spending patterns for major activities carried out by the FAA. We also assume that the proposed transfer of operational control over air traffic control services would occur on the date specified in the legislation, that the AANS Corporation would begin to collect and spend user fees in fiscal year 2021, and that it would continue to administer spending of balances previously appropriated to the FAA for activities related to air traffic control.

Over the next 10 years, CBO estimates that enacting H.R. 2997 would increase direct spending by $90.7 billion and increase revenues by $70.0 billion. Additionally, discretionary spending to implement the bill would total $52.3 billion, subject to appropriation of the authorized amounts, CBO estimates (see Table 2).

TABLE 2. EFFECTS ON DIRECT SPENDING AND REVENUES UNDER H.R. 2997

	By Fiscal Year, in Billions of Dollars											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018-2022	2018-2027
INCREASES IN DIRECT SPENDING												
Operations of the AANS Corporation												
Estimated Budget Authority	0.0	0.0	0.0	12.6	13.0	13.4	13.8	14.2	14.6	15.1	25.6	96.7
Estimated Outlays	0.0	0.0	0.0	9.3	11.6	12.7	13.6	14.1	14.5	15.0	20.8	90.7
Civil Service Retirement and Health Benefits												
Estimated Budget Authority	0.0	0.0	*	*	*	*	*	*	*	*	*	*
Estimated Outlays	0.0	0.0	*	*	*	*	*	*	*	*	*	*
Airport Improvement Program [a]												
Estimated Budget Authority	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	2.0	5.2
Estimated Outlays	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Changes												
Estimated Budget Authority	0.2	0.3	0.4	13.1	13.6	14.0	14.4	14.9	15.3	15.7	27.6	102.0
Estimated Outlays	0.0	0.0	*	9.3	11.6	12.7	13.6	14.1	14.5	15.0	20.8	90.7
INCREASES AND DECREASES (-) IN REVENUES												
Gross AANS Corporation Fees for Air Traffic Services	0.0	0.0	0.0	12.2	12.6	13.0	13.5	14.0	14.5	15.0	24.7	94.6
Reduced Revenues from Payroll and Income Taxes	0.0	0.0	0.0	-3.2	-3.3	-3.4	-3.5	-3.6	-3.8	-3.9	-6.4	-24.6
Net Changes in Revenues	0.0	0.0	0.0	9.0	9.3	9.6	10.0	10.3	10.7	11.1	18.3	70.0
NET INCREASE IN THE DEFICIT FROM CHANGES IN DIRECT SPENDING AND REVENUES												
Impact on Deficit	0.0	0.0	*	0.3	2.3	3.1	3.6	3.8	3.8	3.9	2.6	20.7

Note: * = between -$50 million and $50 million; Components may not sum to totals due to rounding.

a. Budget authority for the Airport Improvement Program is provided as contract authority, a mandatory form of budget authority; however outlays from that contract authority are subject to limitations on obligations specified in annual appropriation acts and are therefore considered discretionary.

Direct Spending

Nearly all of the estimated increase in direct spending under H.R. 2997 represents spending by the proposed corporation. In addition, CBO estimates that transferring FAA employees to the AANS Corporation would affect federal spending for health and retirement benefits for some people. In contrast, CBO expects that conveying property related to air traffic control to the proposed corporation and authorizing the corporation to sell such property and spend the proceeds would have no significant net effect on the federal budget. Finally, H.R. 2997 would increase mandatory contract authority for the Airport Improvement Program, but because FAA's authority to spend such contract authority would be subject to obligation limitations specified in annual appropriation acts, any resulting outlays would be considered discretionary.

Operations of the AANS Corporation. Under H.R. 2997 the corporation would have authority to levy fees on users of air traffic services and to use those amounts to cover all of the entity's financial requirements, including debt service costs stemming from the corporation's authority to issue bonds. CBO estimates that resulting direct spending would total $90.7 billion over the 2021-2027 period.

For this estimate, CBO assumes that the corporation's annual funding requirements would largely remain in line with current estimates of the FAA's full operating and capital costs related to air traffic control. According to the FAA, funding related to air traffic control totals nearly $10.7 billion in 2017. Assuming that spending for personnel, facilities and equipment, and other expenses grow at rates of anticipated growth for wages and infrastructure-related investments, CBO estimates that the corporation would obligate roughly $12.1 billion in 2021 to assume control of those activities.

In addition, CBO expects that the corporation would increase capital spending relative to that base amount, particularly to make additional investments in facilities, equipment, and technologies related to modernizing the air traffic control system, commonly referred to as NextGen. Over the past several years, a wide range of studies and reports prepared by the DOT's Inspector General, the Government Accountability Office (GAO), and aviation stakeholders generally characterize the FAA's existing efforts to implement projects related to NextGen as behind schedule, particularly compared to technologies used by providers of air navigation services in other countries.[5] In addition, representatives of organizations that would be represented on the proposed corporation's board of directors

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5. See for example: Government Accountability Office, Air Traffic Control Modernization: Management Challenges Associated with Program Costs and Schedules Could Hinder NextGen Implementation, February 2012, GAO-12-223, http://www.gao.gov/assets/590/588627.pdf; and Office of Inspector General, Department of Transportation, Audit Report: FAA Reforms Have Not Achieved Expected Cost, Efficiency, and Modernization Outcomes (January 15, 2016), AV-2016-015, https://www.oig.dot.gov/sites/default/files/FAA%20Organizational%20Structure_Final%20Report%5E1-15-16.pdf

have generally called for a reprioritization of modernization activities to accelerate the adoption of technologies that would increase the efficiency of air traffic operations.

According to the FAA, under current law, the agency plans to spend roughly $1 billion annually over the next several years for modernization activities. Under H.R. 2997, CBO expects that the corporation would exercise its authority to issue bonds to raise funds to make additional investments. The timing and magnitude of such investments is highly uncertain and would depend on priorities identified by the corporation. For this estimate, CBO assumes that additional capital spending related to modernization would average between $500 million and $600 million annually, bringing the total amount of modernization-related spending to about $1.5 billion per year over the 2021-2027 period.[6]

All told, CBO estimates that budget authority recorded for the corporation would total $12.6 billion in 2021 and gradually increase to $15.1 billion by 2027, for a total of nearly $96.7 billion over the 2021-2027 period. That amount includes $4 billion in borrowing authority stemming from the corporation's authority to issue bonds. CBO expects that most of the funding would be derived from fees that the corporation would charge for air traffic services, as discussed below under the heading "Revenues". (In addition, CBO assumes that in the initial years following the transition, the corporation would oversee residual spending of amounts previously appropriated to the FAA for activities related to air traffic control.)

In total, assuming that outlays of the AANS Corporation would follow historical spending patterns for the FAA, CBO estimates that resulting expenditures would total $91 billion over the 2021-2027 period. That amount includes $56 billion in personnel costs, $19 billion for capital spending related to air navigation facilities and equipment (including $3.5 billion in additional investments to modernize such facilities and equipment), and $16 billion in other costs and ongoing expenses related to providing air traffic services. (Those amounts do not include residual spending of appropriations provided to the FAA before the proposed transition; see the discussion under the heading "Spending Subject to Appropriation.")

Changes in Civil Service Retirement and Health Benefits. For purposes of this estimate, CBO assumes that the AANS Corporation would provide salaries and benefits that are comparable to those offered to FAA employees under current law. However, the proposed transition could cause some retirement-eligible employees to retire earlier than they would under current law. CBO estimates that about 5 percent of retirement-eligible employees in 2020 and 2021 would retire an average of one year earlier than under current

6. The authority to borrow directly from the public and then obligate amounts so borrowed is considered borrowing authority, a mandatory form of budget authority. In the case of the ATC Corporation, proceeds from the sale of bonds would be considered a means of financing and not reflected in budget totals. Rather, the budget would record obligations incurred against amounts borrowed at the time when such obligations occur, and outlays would reflect the timing and pace of capital acquisitions and related debt service costs.

law. Accelerated retirement for that group of about 500 employees (approximately one quarter of whom are estimated to be air traffic controllers) would, on net, increase mandatory spending for retirement annuities and Federal Employees Health Benefit premiums for the period of time during which those early retirees would remain employees under current law. Over the long run, however, annuity payments to such individuals—which are based in part on years of service and salary levels—would be slightly lower than they otherwise would have been if those individuals had remained in service and continued to earn pay increases. CBO projects that net increases in mandatory spending would total about $23 million over the 2020-2027 period.

Budgetary Effects of Conveying Property and Access to Spectrum-Related Data and Systems to the AANS Corporation. H.R. 2997 would specify procedures for the Secretary of Transportation to convey to the AANS Corporation, for no consideration, any real and personal property (including air navigation facilities) deemed necessary for providing air traffic services. Once the property was conveyed, the corporation could sell it and use the proceeds to make capital investments related to air traffic control infrastructure.

The proposed conveyances would affect the budget only to the extent that they would affect the timing or magnitude of cash flows that the affected assets would otherwise generate under current law. The FAA already has broad authority to sell such property and spend the proceeds; because any increase in receipts from property sales is offset by a corresponding increase in spending soon thereafter, the agency's use of such authority ultimately has no significant net effect on federal spending. Similarly, although the timing and magnitude of receipts and spending associated with transactions pursued by the corporation could differ from those that might occur under current law, CBO estimates that transactions under H.R. 2997 would ultimately have no net effect on the federal budget.

H.R. 2997 would retain the existing legal framework governing the use of the electromagnetic spectrum. As a result, the spectrum currently used by the FAA would continue to be managed as federal frequencies but would be used by the corporation. For this estimate, CBO assumes that requiring the Secretary to provide the corporation access to spectrum-related data and systems would have no significant effect on the use or disposition of FAA's spectrum assignments relative to current law. As a result, CBO estimates that the bill would have a negligible effect on direct spending for spectrum relocation or research activities and would not affect the timing or amount of offsetting receipts from future auctions of commercial licenses.

Airport Improvement Program. Through the AIP, the FAA provides grants to public-use airports for projects to enhance safety and increase airports' capacity for passengers and aircraft. Under H.R. 2997, the FAA would continue to operate this program after transferring operational control over air traffic control to the AANS Corporation.

H.R. 2997 would provide contract authority for the AIP through fiscal year 2023. The FAA Extension, Safety and Security Act of 2016 provided the FAA with $3.35 billion in contract authority through September 30, 2017. Pursuant to provisions of law that govern CBO's baseline projections, funding for certain expiring programs—such as contract authority for AIP—is assumed to continue beyond the scheduled expiration date for budget projection purposes. Consistent with that practice, CBO's baseline incorporates the assumption that AIP contract authority over the 2018-2027 period will remain at the 2017 level of $3.35 billion per year.

Relative to current law, H.R. 2997 would provide $22.7 billion in new contract authority. That amount includes $3.6 billion in 2018 and amounts for subsequent years that would gradually increase to just under $4 billion by 2023. Consistent with CBO's methodology for projecting contract authority under proposed legislation, we assume that contract authority for AIP would continue to be provided after 2023 and would remain at about $4 billion annually.

Under that assumption, CBO estimates that contract authority under H.R. 2997 would exceed the levels of contract authority already projected in the CBO baseline by $5.2 billion over the 2018-2027 period. (Because spending from contract authority is controlled by obligation limitations specified in annual appropriation acts, outlays of the AIP are considered discretionary.)

Revenues

Upon assuming operational control over air traffic services, H.R. 2997 would authorize the AANS Corporation to charge fees to users of such services, require users to pay such fees, and allow the corporation to enforce that requirement in U.S. courts. The bill would specify certain requirements that the corporation must follow in setting such fees. In particular, fees must be consistent with certain policies set forth by the International Civil Aviation Organization, which generally relate the reasonableness of fees levied by providers of air navigation services to the cost of providing such services. Under H.R. 2997, fees could not be imposed for services provided for operations that involve aircraft owned or operated by the U.S. military or operations of aircraft that are considered public aircraft. The bill also would prohibit the corporation from charging fees for services to support operations of civil aircraft related to air tours; non-scheduled service; or recreational, private, agricultural, and certain industrial activities.

The bill would require the AANS Corporation to publish the initial schedule of fees at least 180 days before the date when it would assume operational control over air traffic services and outline procedures through which users of such services could dispute the reasonableness of such fees. Under the bill, the Secretary of Transportation would have a role in overseeing any such disputes.

For this estimate, CBO assumes that the corporation would begin collecting fees on October 1, 2020, and that such fees would be set as necessary to cover its annual funding requirements (including debt service on any bonds issued). CBO estimates those amounts would initially total about $12.2 billion in 2021 and grow to $15.0 billion by 2027. We estimate that revenues from fees would be roughly equal to those amounts.[7]

Because excise taxes and other indirect business taxes (such as assessments by the AANS Corporation) reduce the base of income and payroll taxes, higher amounts of those indirect business taxes would lead to reductions in revenues from income and payroll taxes. As a result, revenues from the fees collected by the corporation would be partially offset in the federal budget by a loss of income and payroll tax receipts equal to about 26 percent of the fees each year. Thus, CBO estimates that enacting H.R. 2997 would increase net revenues by about $70 billion over the 2021-2027 period.

Spending Subject to Appropriation

H.R. 2997 would authorize appropriations totaling $48.2 billion over the 2018-2023 period for the FAA and related DOT activities. Most of that amount—$40.6 billion—would be specifically authorized for those agencies to continue to operate all functions, including those related to air traffic control, through fiscal year 2020. Starting in 2021, the AANS Corporation would assume operational control over the air traffic control system, and the FAA and other offices within the Department of Transportation would continue to perform certain regulatory and safety-related functions, provide grants to airports to support capital projects, make payments to air carriers that provide service to certain rural communities, and carry out other administrative requirements. For those activities, the bill would authorize appropriations totaling $7.6 billion over the 2021-2022 period.

Assuming appropriation of the specified amounts (as well as the enactment of limitations on obligations of contract authority for the Airport Improvement Program that are consistent with funding levels provided under H.R. 2997), CBO estimates that discretionary spending to implement H.R. 2997 would total $52.3 billion over the 2018-2027 period (see Table 3).

7. Estimates of user fees under H.R. 2997 are equivalent to roughly 70 percent of the total amount of aviation-related revenues included in CBO's baseline projections. H.R. 2997 would not extend those taxes beyond their scheduled expiration nor would it address whether the fees would be collected or terminated once the ATC Corporation assumes responsibility for air traffic control. Under current law, most aviation-related excise taxes are scheduled to expire after March 31, 2016; however, pursuant to provisions of law that govern CBO's baseline projections, such taxes are assumed to continue beyond their scheduled expiration date for budget projection purposes (see Additional Information).

TABLE 3. CHANGES IN SPENDING SUBJECT TO APPROPRIATION UNDER H.R. 2997

	By Fiscal Year, in Billions of Dollars											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018-2022	2018-2027
INCREASES IN SPENDING SUBJECT TO APPROPRIATION												
FAA Operations												
Authorization Level	10.1	10.3	10.6	2.0	2.0	2.0	0.0	0.0	0.0	0.0	35.0	37.1
Estimated Outlays	9.0	10.0	10.4	2.9	2.3	2.1	0.2	0.1	*	*	34.6	37.1
Air Navigation Facilities and Equipment												
Authorization Level	2.9	3.0	3.0	0.2	0.2	0.2	0.0	0.0	0.0	0.0	9.3	9.5
Estimated Outlays	1.3	2.0	2.5	1.5	0.9	0.6	0.3	0.1	*	*	8.2	9.3
Airport Improvement Program [a]												
Authorization Level	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Estimated Outlays	*	0.2	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	1.3	4.3
Essential Air Service and Other Activities												
Estimated Authorization Level	0.2	0.2	0.2	0.3	0.3	0.4	0.0	0.0	0.0	0.0	1.3	1.6
Estimated Outlays	0.1	0.2	0.2	0.3	0.3	0.4	0.1	*	0.0	0.0	1.1	1.6
Total Changes												
Estimated Authorization Level	13.2	13.5	13.8	2.5	2.5	2.6	0.0	0.0	0.0	0.0	45.6	48.2
Estimated Outlays	10.5	12.4	13.4	5.0	4.0	3.6	1.2	0.9	0.7	0.7	45.2	52.3

Notes: FAA = Federal Aviation Administration; * = less than $50 million.

a. Budget authority for the Airport Improvement Program is provided as contract authority, a mandatory form of budget authority; however, outlays from that contract authority are subject to limitations on obligations specified in annual appropriation acts and are therefore considered discretionary.

FAA Operations. H.R. 2997 would authorize appropriations totaling $31.1 billion over the 2018-2020 period for FAA operations, primarily for salaries and expenses related to operating the air traffic control system. (Funding for FAA operations in 2017 totals $9.6 billion.) Starting in 2021, responsibility for most activities funded through that account would shift to the AANS Corporation, and the FAA would remain responsible for a much smaller set of regulatory and safety-related activities. For those remaining purposes the bill would authorize appropriations totaling $6.0 billion over the 2021-2023 period. Assuming appropriation of the amounts authorized over the 2018-2023 period, CBO estimates that resulting outlays would total $37.1 billion over the 2018-2027 period.

Air Navigation Facilities and Equipment. H.R. 2997 would authorize appropriations totaling $9.0 billion over the 2018-2020 period for programs to maintain and modernize infrastructure and systems for communication, navigation, and surveillance related to air travel. (Funding for facilities and equipment totals nearly $2.9 billion in 2017.) Starting in 2021 the AANS Corporation would assume primary responsibility for operating, maintaining, and modernizing such infrastructure and equipment. The bill would authorize additional appropriations totaling $580 million over the 2021-2023 period for the FAA to carry out residual responsibilities related to the safety of air navigation facilities and equipment that would not be performed by the AANS Corporation. Assuming appropriation of the authorized amounts, CBO estimates that resulting outlays would total $9.3 billion over the 2018-2027 period (and $243 million in later years).

Airport Improvement Program. The proposed transfer of control over air traffic control would not affect the AIP, which the FAA would continue to administer under H.R. 2997. CBO estimates that contract authority for AIP grants to airports under H.R. 2997 would exceed the amounts of contract authority already assumed in the CBO baseline by $5.2 billion over the 2018-2027 period. Such grants support planning and development of capital projects to enhance the infrastructure and capacity of public-use airports.

Assuming that annual appropriations acts set obligation limitations for AIP spending that are equal to the levels of contract authority projected under H.R. 2997, CBO estimates that discretionary outlays for the program over the 2018-2027 period would total $4.3 billion more than amounts projected in CBO's baseline through 2027 (and $940 million in later years).

Essential Air Service and Other Activities. H.R. 2997 would authorize appropriations totaling $178 million in 2018 and $1.6 billion over the 2018-2023 period for the Essential Air Service program, through which DOT makes payments to air carriers that provide service to certain rural communities. (Discretionary funding for such payments in 2017 totals $150 million.) The bill also would authorize the appropriation of $10 million annually over the 2018-2023 period for grants to help small communities enhance air service and would require DOT and the Government Accountability Office to complete various studies, reports, and administrative requirements. Assuming appropriation of amounts specified and estimated to be necessary for required studies, reports and administrative activities, CBO estimates that resulting outlays would total $1.6 billion over the next 10 years.

PAY-AS-YOU-GO CONSIDERATIONS

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. The net changes in outlays and revenues that are subject to those pay-as-you-go procedures are shown in the following table.

CBO Estimate of Pay-As-You-Go Effects for H.R. 2997, as ordered reported by the House Committee on Transportation and Infrastructure on June 27, 2017

	By Fiscal Year, in Millions of Dollars												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2017-2022	2017-2027
					NET INCREASE IN THE DEFICIT								
Statutory Pay-As-You-Go Impact	0	0	0	9	296	2,253	3,099	3,585	3,751	3,830	3,898	2,557	20,721
Memorandum:													
Changes in Outlays	0	0	0	9	9,276	11,565	12,740	13,565	14,082	14,513	14,952	20,850	90,702
Changes in Revenues	0	0	0	0	8,981	9,312	9,641	9,980	10,331	10,683	11,054	18,292	69,980

INCREASE IN LONG TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting the legislation would increase net direct spending and on-budget deficits by more than $5 billion in at least one of the four consecutive 10-year periods beginning in 2028. The effects in future years would be a continuation of the trends shown for the first decade.

ADDITIONAL INFORMATION

The estimated changes in direct spending and revenues under H.R. 2997 reflect CBO's assessment of the budgetary impacts of enacting H.R. 2997 as a stand-alone measure. Ultimately, however, the net budgetary impact of activities related to air traffic control under H.R. 2997 would depend on the details of subsequent legislation that lies beyond the scope of this cost estimate. CBO cannot predict whether such additional legislation will be enacted pursuant to H.R. 2997, but expects that the overall net budgetary impact of shifting responsibility for air traffic control to the AANS Corporation would not necessarily increase future deficits by the amounts reflected in this cost estimate *if additional legislation consistent with H.R. 2997 was enacted*.

Broadly speaking, while CBO estimates that the proposed corporation would spend more than the FAA otherwise will under current law for capital investments to modernize infrastructure and equipment related to the air traffic control system, CBO expects that underlying costs related to operating and maintaining that system would not change significantly under H.R. 2997. As a result, CBO expects that shifting responsibility for those costs to the proposed corporation would not materially change the magnitude of spending related to air traffic control *if future appropriations for the FAA's retained* *responsibilities were reduced accordingly* to reflect the shift—from mandatory to discretionary—of such spending. Under H.R. 2997, CBO expects that overall amounts of such federal spending would remain more or less the same, with incremental increases in spending stemming primarily from the AANS Corporation's authority to issue debt to finance additional investments related to modernization.

Similarly, if *future tax-related legislation separate from H.R. 2997* was enacted to reduce existing aviation-related excise taxes by amounts equivalent to new user fees that would be charged by the AANS Corporation under H.R. 2997, the resulting amount of revenues available to support air traffic control (and other aviation activities) would be largely unchanged and could continue to cover most, if not all aviation-related spending.

Thus, if such additional legislation were enacted—consistent with the proposed changes envisioned on H.R. 2997—to effectively keep both aviation-related spending and revenues in line with current levels, CBO expects that resulting net increases in future deficits would largely reflect increased capital spending by the AANS Corporation to finance investments related to modernization, which CBO estimates will totally about $3.5 billion over the period covered by this estimate. (That estimate of modernization spending is uncertain and could be higher or lower depending on future investment-related decisions of the AANS Corporation.)

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

The bill contains intergovernmental and private-sector mandates as defined in UMRA. CBO estimates that the aggregate cost of the mandates on public entities would fall below the annual threshold established in UMRA for intergovernmental mandates ($78 million in 2017, adjusted annually for inflation). However, CBO estimates that the aggregate cost of the mandates on private entities would well exceed the annual threshold established in UMRA for private-sector mandates ($156 million in 2017, adjusted annually for inflation).

Mandates That Apply to Both Public and Private Entities

The bill would require operators of air ambulances to provide contact information on their website and in their communications to facilitate those consumers who may want to file complaints about service. The bill also would require air ambulance operators to disclose charges for air transportation services separately on invoices and provide consumer protections, if determined to be appropriate by the Secretary of Transportation. According to industry sources, there are about 300 air medical services in the United States. CBO estimates that the cost to comply with the requirements, which are mostly administrative, would be small.

Mandates and Other Effects on Public Entities

The bill would preempt state and local authority over air traffic control services. Although the preemption would limit the application of state and local laws and regulations, CBO estimates that the bill would impose no duty on state or local governments that would result in additional spending or a loss of revenues.

The bill would benefit public airports by expanding federal grant programs and the ability of airports to charge passenger fees that support airport improvement projects. Any costs those entities incur to meet grant requirements would result from complying with conditions of federal assistance.

Mandates That Apply to Private Entities Only

User Fees for Air Traffic Control Services. The bill would require users of air traffic services provided by the American Air Navigation Services Corporation to pay fees for the use of those services. Such users would include air carriers and other private entities. CBO estimates that those fees would total about $12 billion in 2021 and gradually increase thereafter.

Other Requirements For Air Carriers. The bill would impose several other mandates on air carriers. Specifically, the bill would require that air carriers:

- Prepare a fatigue risk management plan for flight attendants, a document describing passengers' rights, and an employee assault prevention and response plan;
- Provide training to flight attendants and other employees and comply with requirements for pilot rest to be developed by an aviation rulemaking committee;
- Provide information on company websites or through other means about countries that may require an airplane to be treated with insecticides;
- Include links to their customer service plans on their websites and provide information about baggage fees in internet fare quotations;
- Provide information about compensation and accommodations in the event of a widespread disruption of their operations;
- Ensure medical kits contain supplies for treating children in emergencies, if determined to be appropriate by the FAA;

- Comply with prohibitions on involuntarily deplaning passengers and requirements for compensating passengers denied boarding; and

- Comply with the bill's prohibitions against in-flight voice communications on mobile devices.

On the basis of information about existing training programs and current industry practices, CBO estimates that the cost of most of the other mandates in the above list would be small and that none would impose significant additional costs on air carriers relative to UMRA's threshold.

The bill also would require air carriers to meet standards for seat dimensions established in a future FAA rulemaking. The cost of the mandate would include any loss of income stemming from a reduction in the number of seats available for passengers, which would depend on minimum dimensions that would be set forth in those regulations.

Requirements For Other Entities

Manufacturers of Aircraft. The bill would impose a mandate on manufacturers by requiring them to install a secondary cockpit barrier on aircraft that are manufactured for delivery to passenger air carriers in the United States. Such barriers would include retractable screens and would have to be installed only on new aircraft delivered to passenger air carriers in the United States. Based on information from industry sources, CBO estimates that the cost of installing such barriers would total no more than $15 million annually.

Ticket Agents. The bill would impose a mandate on ticket agents with annual revenues of $100 million or more by requiring them to meet minimum customer service standards to be established in future regulations. The bill would direct the Secretary of Transportation to consider standards for prompt refunds, options to hold fares at no cost, disclosures of cancellation policies, and notifications of itinerary changes. The cost of the mandate would depend on the standards set by the Secretary.

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