



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

July 17, 2007

S. 1300

Aviation Investment and Modernization Act of 2007

*As ordered reported by the Senate Committee on Commerce, Science, and Transportation
on May 16, 2007*

SUMMARY

S. 1300 would authorize appropriations, mainly over the 2008-2011 period, for activities of the Federal Aviation Administration (FAA). CBO estimates that implementing the bill would cost about \$49 billion over the 2008-2012 period, assuming the appropriation of the necessary amounts. In addition, we estimate that enacting the bill would reduce net direct spending by \$457 million over the 2008-2012 period, but increase it by nearly \$1.8 billion over the 2008-2017 period. Finally, CBO and the Joint Committee on Taxation (JCT) estimate that enacting S. 1300 would lead to a net increase in revenues of \$60 million over the 2008-2012 period and \$109 million over the 2008-2017 period.

Pursuant to section 203 of S. Con. Res. 21, the Concurrent Resolution on the Budget for Fiscal Year 2008, CBO estimates that changes in direct spending and revenues from enacting S. 1300 would not cause an increase in the on-budget deficit greater than \$5 billion in any of the 10-year periods between 2018 and 2057.

S. 1300 contains intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA), but CBO estimates that the costs to state, local, and tribal governments of complying with these mandates would be small and would not exceed the threshold established in UMRA (\$66 million in 2007, adjusted annually for inflation). Other provisions of the bill would benefit states and public institutions of higher education by authorizing grants for airport improvements and aviation research. Any costs those entities might incur would result from complying with conditions of federal assistance.

S. 1300 would impose several private-sector mandates as defined in UMRA. The bill would impose new requirements on commercial air carriers, operators of certain general aviation aircraft, operators of certain aircraft weighing 75,000 pounds or less and operators of emergency medical service helicopters. Based on information from the FAA and industry sources, CBO estimates that the aggregate direct cost of complying with those mandates

would exceed the annual threshold established by UMRA for private-sector mandates (\$131 million in 2007, adjusted annually for inflation) in each of the first five years the mandates are in effect.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 1300 is shown in Table 1. The costs of this legislation fall within budget functions 400 (transportation) and 600 (income security).

TABLE 1. ESTIMATED BUDGETARY EFFECTS OF S. 1300

	By Fiscal Year, in Millions of Dollars					
	2007	2008	2009	2010	2011	2012
SPENDING SUBJECT TO APPROPRIATION						
Spending Under Current Law						
Budget Authority/Authorization Level ^a	11,064	162	127	127	77	77
Estimated Outlays ^b	15,059	5,161	2,078	901	301	112
Proposed Changes						
FAA Operations						
Authorization Level	0	8,726	8,978	9,305	9,590	0
Estimated Outlays	0	7,766	8,950	9,269	9,559	1,055
Air Navigation Facilities and Equipment						
Authorization Level	0	2,572	2,923	3,079	3,317	0
Estimated Outlays	0	1,492	2,338	2,902	3,184	1,350
Offsetting Collections from the Modernization Surcharge						
Estimated Authorization Level	0	0	-410	-420	-430	0
Estimated Outlays	0	0	-410	-420	-430	0
Airport Improvement Program Outlays ^c						
Authorization Level	0	0	0	0	0	0
Estimated Outlays	0	62	134	224	320	402
Research, Engineering, and Development						
Authorization Level	0	140	191	191	194	0
Estimated Outlays	0	77	153	185	193	87
Other Provisions						
Estimated Authorization Level	0	24	46	45	95	10
Estimated Outlays	0	17	43	48	85	27
Total Changes						
Estimated Authorization Level	0	11,462	11,728	12,200	12,766	10
Estimated Outlays	0	9,414	11,208	12,208	12,911	2,921
Spending Under S. 1300						
Estimated Authorization Level ^a	11,064	11,624	11,855	12,327	12,843	87
Estimated Outlays	15,059	14,575	13,286	13,109	13,212	3,033

Continued

TABLE 1. Continued

	By Fiscal Year, in Millions of Dollars					
	2007	2008	2009	2010	2011	2012
DIRECT SPENDING						
Baseline Spending Under Current Law						
Estimated Budget Authority ^c	3,725	3,725	3,725	3,725	3,725	3,725
Estimated Outlays	40	50	50	50	50	50
Proposed Changes						
Estimated Budget Authority ^c	0	115	109	243	384	494
Estimated Outlays	0	-69	-123	-76	-40	-149
Spending Under S. 1300						
Estimated Budget Authority ^c	3,725	3,840	3,828	3,968	4,109	4,219
Estimated Outlays ^b	40	-19	-73	-26	10	-99
CHANGES IN REVENUES						
Estimated Revenues	0	*	17	15	15	13

Note: * = between -\$500,000 and \$500,000.

FAA = Federal Aviation Administration.

- a. The 2007 level is the amount appropriated for that year for FAA operations; facilities and equipment; research, engineering, and development; essential air service, and the Joint Planning and Development Office (JPDO). The 2008 through 2012 levels reflect amounts authorized to be appropriated under current law for essential air service, small community air service, and the JPDO.
- b. Estimated outlays under current law are from amounts appropriated for 2007 and previous years for FAA operations, facilities and equipment; research, engineering, and development; essential air service; and the Joint Planning and Development Office; as well as discretionary outlays from the obligation limitations for the Airport Improvement Program, as assumed to continue in the budget resolution baseline.
- c. 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 appropriation acts and are therefore discretionary.

BASIS OF ESTIMATE

Implementing S. 1300 would increase discretionary spending. Enacting the bill also would increase net direct spending and revenues over the next 10 years. Outlay estimates are based on historical spending patterns for affected programs and on information provided by the Department of Transportation (DOT) and FAA staff. For this estimate, CBO assumes S. 1300 will be enacted near the end of fiscal year 2007.

Spending Subject to Appropriation

CBO estimates that fully funding aviation programs under S. 1300 would cost about \$9.4 billion in 2008 and \$49 billion over the 2008-2012 period. That estimate assumes that amounts authorized and estimated to be necessary will be provided near the start of each fiscal year.

FAA Operations. S. 1300 would authorize appropriations totaling \$8.7 billion in 2008 and \$36.6 billion over the 2008-2011 period for FAA operations, particularly for salaries and expenses related to operating the air traffic control system. (In comparison, the Congress provided \$8.3 billion for operations in fiscal year 2007.) Assuming appropriation of the authorized amounts, CBO estimates such spending would total \$7.8 billion in 2008 and \$36.6 billion over the 2008-2012 period.

Air Navigation Facilities and Equipment. S. 1300 would authorize appropriations totaling \$2.6 billion in 2008 and \$11.9 billion over the 2008-2011 period for facilities and equipment—primarily infrastructure and systems for communication, navigation, and radar surveillance related to air travel. (In comparison, the Congress provided \$2.5 billion for such activities during fiscal year 2007.) Assuming appropriation of the authorized amounts, CBO estimates resulting outlays would total \$1.5 billion in 2008 and \$11.3 billion over the 2008-2012 period, with additional spending occurring in later years.

By authorizing appropriations for facilities and equipment over the 2008-2011 period, S. 1300 would authorize adjustments to contract authority for the airport improvement program in those years. Current law provides for increases to contract authority (a mandatory form of budget authority) for that program in any year that the amounts authorized to be appropriated for facilities and equipment exceed amounts actually provided in appropriation acts for such activities. Any such changes authorized under S. 1300 and triggered by annual appropriation acts would be considered changes in direct spending, and are discussed later in this estimate (see “Direct Spending”).

Offsetting Collections from the Modernization Surcharge. S. 1300 would establish a new fee—a surcharge of \$25 on certain flights—to be used for air traffic control modernization. The legislation would specify two alternative budgetary treatments for amounts collected from the proposed surcharges, depending on certain conditions. In general, the FAA’s authority to collect surcharges would be subject to appropriation of the full amount authorized for FAA facilities and equipment. Surcharges collected pursuant to appropriation acts would be credited as discretionary offsetting collections (a credit against discretionary spending), reducing net appropriations for facilities and equipment. Under S. 1300, however, if the FAA uses newly proposed borrowing authority (a form of direct spending) to finance investments to modernize the air traffic control system, the bill would authorize the agency

to collect surcharges, without appropriation action, to repay such borrowing. Under the bill, surcharges used to repay borrowing would be credited as offsetting receipts (a credit against direct spending).

CBO expects the FAA would begin collecting surcharges in fiscal year 2009. Based on information from the FAA about anticipated numbers of flights that would generate income from the proposed surcharge, CBO estimates the proposed surcharge would generate \$410 million in 2009, increasing to \$490 million by 2017. Based on the likely timing and magnitude of federal borrowing related to air traffic control modernization, CBO estimates the agency would start to borrow funds in 2012. Until that time, CBO estimates that surcharges would generate discretionary offsetting collections totaling nearly \$1.3 billion over the 2009-2011 period, assuming appropriation of amounts authorized for facilities and equipment. Starting in 2012, we expect surcharges would be used to repay borrowing authority and credited as offsetting receipts, as described later in this estimate (see “Direct Spending”).

Airport Improvement Program Outlays. S. 1300 would provide \$3.8 billion in contract authority (a mandatory form of budget authority) in 2008 and \$15.8 billion over the 2008-2011 period for the airport improvement program (AIP). Through that program, the FAA provides grants to airports for projects to enhance capacity and safety. Outlays of AIP contract authority are controlled by limitations on obligations set in annual appropriation acts and are therefore considered discretionary.

CBO estimates that enacting S. 1300 would increase contract authority over levels assumed in the current budget resolution baseline by \$1.1 billion over the 2008-2011 period specifically covered under S. 1300 and \$425 million annually thereafter. (See “Direct Spending” for a discussion of the budgetary treatment of AIP contract authority under the budget resolution baseline and for purposes of projecting costs under proposed legislation.)

The legislation would make several changes, such as increasing the maximum federal share of certain airport projects and expanding eligibility criteria for AIP grants, that CBO expects would increase the rate of spending of AIP funds. In total, assuming that obligation limitations of AIP spending, as set forth in annual appropriation acts, are equal to the levels of contract authority projected under S. 1300, CBO estimates that implementing this provision would increase discretionary spending by \$1.1 billion over the 2008-2012 period, with additional spending occurring in later years. That amount includes \$200 million in accelerated outlays from contract authority assumed in the current baseline and \$900 million in spending from additions to contract authority under S. 1300.

Research, Engineering, and Development. S. 1300 would authorize appropriations totaling \$140 million in 2008 and \$716 million over the 2008-2011 period for research and activities

aimed at improving the safety and capacity of U.S. airspace. (In comparison, the Congress provided \$130 million for such activities in 2007.) CBO estimates fully funding those programs under S. 1300 would cost \$77 million in 2008 and \$695 million over the 2008-2012 period, with additional spending occurring in later years.

Other Provisions. CBO estimates that implementing other provisions of S. 1300 would require appropriations totaling \$220 million over the 2008-2012 period. (In comparison, CBO estimates the Congress provided nearly \$100 million for related programs in 2007.) That amount includes:

- \$105 million to extend, through 2011, the authorization of appropriations totaling \$35 million a year for the Small Community Air Service Development Program (currently authorized at that level through 2008);
- \$50 million to continue, through 2011, activities of the Joint Planning and Development Office, currently authorized at \$50 million a year through 2010, which coordinates multiple agencies' activities related to modernizing the nation's air traffic control system;
- \$30 million to increase, by \$6 million a year, the amount authorized to be appropriated for the Essential Air Service program (currently permanently authorized at \$77 million a year);
- \$10 million specifically authorized for the Department of the Interior to develop plans related to air tours of national parks;
- \$5 million specifically authorized for applied research and training on the use of advanced materials in certain aircraft; and,
- \$20 million estimated to be necessary for various FAA studies, reports, and activities.

Assuming appropriation of amounts specified and estimated to be necessary, CBO estimates fully funding these activities would cost \$17 million in 2008 and \$220 million over the 2008-2012 period.

TABLE 2. EFFECTS ON DIRECT SPENDING AND REVENUES UNDER S. 1300

	By Fiscal Year, in Millions of Dollars										2008-	2008-
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2012	2017
CHANGES IN DIRECT SPENDING												
Air Traffic Control Modernization												
Estimated Budget Authority	0	0	0	0	500	750	750	1,000	1,000	1,000	500	5,000
Estimated Outlays	0	0	0	0	290	560	700	890	960	1,000	290	4,400
Modernization Surcharge	0	0	0	0	-440	-450	-460	-470	-480	-490	-440	-2,790
Estimated Budget Authority	0	0	0	0	-440	-450	-460	-470	-480	-490	-440	-2,790
AIP Contract Authority ^a												
Budget Authority	125	225	325	425	425	425	425	425	425	425	1,525	3,650
Estimated Outlays	0	0	0	0	0	0	0	0	0	0	0	0
Increased Spending from Overflight Fees												
Estimated Budget Authority	0	18	18	19	19	20	20	21	21	21	74	177
Estimated Outlays	0	14	18	19	19	20	20	21	21	21	70	173
Retirement Benefits for Pilots												
Estimated Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0
Estimated Outlays	-9	-17	-14	-9	-8	-3	1	1	1	1	-57	-56
Third-Party Financing of Investments in Modernization												
Estimated Budget Authority	60	0	0	0	0	0	0	0	0	0	60	60
Estimated Outlays	10	20	20	10	0	0	0	0	0	0	60	60
Aviation War-Risk Insurance												
Estimated Budget Authority	-70	-140	-100	-60	-10	30	60	70	90	100	-380	-30
Estimated Outlays	-70	-140	-100	-60	-10	30	60	70	90	100	-380	-30
Total Changes												
Estimated Budget Authority	115	103	243	384	494	775	795	1,046	1,056	1,056	1,339	6,067
Estimated Outlays	-69	-123	-76	-40	-149	157	321	512	592	632	-457	1,757
CHANGES IN REVENUES												
Estimated Revenues	0	17	15	15	13	13	11	10	8	7	60	109

Note: AIP = Airport Improvement Program.

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 appropriation acts and are therefore discretionary.

Direct Spending

CBO estimates enacting S. 1300 would reduce direct spending by \$457 million over the 2008-2012 period but increase it by nearly \$1.8 billion over the 2008-2017 period. Those changes, presented in Table 2, result primarily from provisions that would:

- Provide new budget authority for the FAA to modernize the nation’s air traffic control system;
- Establish a surcharge on flight operations;
- Provide additional contract authority for the AIP;
- Increase direct spending of overflight fees;
- Increase the mandatory retirement age for pilots;
- Expand the use of third-party financing of investments in modernization; and
- Extend the FAA’s authority to sell certain insurance.

Modernizing the Air Traffic Control System. S. 1300 would authorize the FAA to borrow up to \$5 billion over the 2009-2025 period to finance capital investments related to modernizing the nation’s air traffic control system. Such borrowing authority would constitute new direct spending authority and spending would be recorded in the budget as the agency borrows funds. To repay borrowed funds, the bill also would establish a surcharge on certain flights, as described in the following section. Based on information from the FAA and the JPDO about the anticipated timing and magnitude of federal spending related to air traffic control modernization, CBO estimates that enacting this provision would increase direct spending by \$4.4 billion over the 2012-2017 period, with additional significant spending continuing through at least 2025.

The bill does not specify whether the \$5 billion limit would apply to cumulative borrowing—essentially capping direct spending at \$5 billion—or if the agency would be authorized to borrow new funds as it repays obligations—effectively operating as a revolving line of credit. Although current estimates of total costs to modernize the air traffic control system are uncertain, CBO expects they will far exceed the legislation’s \$5 billion borrowing limit—perhaps reaching \$22 billion according to recent testimony by the FAA. For this estimate, CBO assumes that it would continue to borrow throughout the 2009-2025 period, provided that the agency continues to repay borrowed funds over that period, so that outstanding debt would not exceed \$5 billion at any time. CBO estimates that borrowing over the 2009-2025 period would total between \$8 billion and \$11 billion, depending on the magnitude of surcharges available to repay borrowing.

Finally, S. 1300 does not specify whether the FAA would borrow funds from the Department of the Treasury or by selling obligations directly to the public. The Department of the Treasury conducts the federal government’s conventional borrowing by issuing bonds and

other types of debt. Treasury securities are the “gold standard” because they are considered virtually free from the risk of default and are highly liquid. Other means of borrowing funds, including allowing an agency to sell obligations directly to the public, can be expected to cost the government more, as investors would likely demand a premium over Treasury bonds for purchasing specifically issued debt. For this estimate, CBO assumes the FAA would borrow through the Treasury to fund investments in modernization.

Offsetting Receipts from the Modernization Surcharge. As previously discussed, S. 1300 would establish a new fee—a \$25 surcharge on certain flights—to provide a source of funds for activities related to modernizing the nation’s air traffic control system. In years when the FAA borrows funds for investments related to modernization, such surcharges would be credited as offsetting receipts (a credit against direct spending) and used to repay such borrowing. (In years when surcharges are not needed to repay agency borrowing, they would be subject to appropriation and credited as discretionary offsetting collections; see “Spending Subject to Appropriation.”)

Based on information from the FAA on the likely timing of agency borrowing and the number of flights that would generate income from the proposed surcharge, CBO estimates that resulting offsetting receipts would total about \$2.8 billion over the 2012-2017 period (and that surcharges collected before 2012 would be recorded as offsetting collections).

Airport Improvement Program Contract Authority. S. 1300 would provide \$3.7 billion in additional contract authority for the AIP over the 2008-2017 period. As previously noted, additional spending from such contract authority would be controlled by obligation limitations specified in annual appropriation acts, and thus, outlays would be considered discretionary.

Baseline Treatment of AIP Contract Authority. The Balanced Budget and Emergency Deficit Control Act of 1985, which established rules that govern the calculation of CBO’s baseline, expired on September 30, 2006. Nevertheless, CBO continues to prepare baselines and estimate costs of proposed legislation according to the methodology prescribed in that law, including the requirement that certain expiring programs—such as contract authority for AIP—be assumed to continue for budget projection purposes. Consistent with that practice, the budget resolution baseline assumes AIP contract authority over the 2008-2017 period will remain at the 2007 level of nearly \$3.7 billion.

Increases to Contract Authority. Under S. 1300, AIP contract authority would total \$3.8 billion in 2008 and increase gradually to \$4.1 billion in 2011. Consistent with CBO’s methodology for projecting contract authority under proposed legislation, we assume that contract authority for AIP would continue after 2011 and would remain at \$4.1 billion annually over the 2012-2017 period. In total, CBO estimates contract authority under

S. 1300 would exceed levels of contract authority assumed in the current budget resolution baseline by \$1.1 billion over the four-year period specifically covered by the bill and \$3.7 billion over the 2008-2017 period.

Adjustments to AIP Contract Authority. Public Law 106-181, enacted in 2000, reauthorized FAA programs for fiscal years 1999 through 2003. That law created a permanent mechanism that provides for an increase to AIP contract authority in any year that the amount authorized to be appropriated for air navigation and facilities exceeds the amount provided for such activities in an appropriation act. By authorizing appropriations for facilities and equipment over the 2008-2011 period, S. 1300—in conjunction with that provision of current law—would authorize adjustments to AIP contract authority for those years as well. Any adjustment authorized under this legislation, once triggered by annual appropriation acts, would constitute new direct spending authority. All spending for AIP—including spending triggered by such adjustments—would still be subject to obligation limitations established in appropriation acts. Although S. 1300 could result in additional AIP contract authority of as much as \$11.9 billion over the 2008-2011 period if no appropriations were provided for air navigation facilities and equipment, CBO assumes that appropriations will equal or exceed the amounts authorized by the bill; thus, we project no additional increases to AIP contract authority under S. 1300.

Increased Spending of Overflight Fees. Under current law, DOT has authority to spend, without further appropriation, revenues from overflight fees paid by air carriers to reimburse FAA for costs to provide navigational support to flights that neither take off nor land in the United States. As discussed below, S. 1300 would increase revenues from such fees starting in 2009. CBO estimates that resulting increases in direct spending would total \$173 million over the 2009-2017 period. Under the bill, such spending would support particular activities related to the Essential Air Service program, which subsidizes the cost of providing air service to certain rural communities.

Pilots' Mandatory Retirement Age. Section 706 of the bill would raise the mandatory retirement age for commercial pilots from age 60 to age 65 within 30 days of the bill's enactment. That change would allow pilots to continue flying for up to five additional years, which in some cases would enable them to accrue higher pension benefits or to receive higher guaranteed pension insurance payments from the Pension Benefit Guaranty Corporation (PBGC). CBO estimates that the change would reduce direct spending by \$9 million in 2008, \$57 million over the 2008-2012 period, and \$56 million over the 2008-2017 period.

Under current law, FAA regulations require that commercial airline pilots retire from service when they reach age 60. (This standard has been in place since 1959.) As a result, age 60 is frequently the age at which pilots begin to receive their pension benefits. For pilots

participating in pension plans that have been terminated by the PBGC, the age-60 requirement means that many pilots will receive benefits limited to the agency's maximum guaranteed benefits for participants who retire at age 60, which is about 35 percent less than the age-65 guarantee. (Special rules apply to participants who were eligible for benefits within three years of a plan's termination.)

In January 2007, the FAA announced that it was initiating the rulemaking process that would allow it to raise the mandatory retirement age to age 65, a process which the agency indicated would likely take 18 months to 24 months.

S. 1300 would raise the mandatory retirement age for pilots to age 65, effective not later than 30 days after enactment. For purposes of this estimate, CBO assumes that this would take place around the beginning of fiscal year 2008, effectively accelerating the implementation of the higher retirement age by about one year relative to current law.

Based on data provided by the PBGC, CBO anticipates that about 600 pilots participating in terminated pension plans would turn 60 years old in fiscal year 2008, and would have the opportunity to continue flying until age 65 if S. 1300 were enacted. CBO expects that those pilots would continue to fly for up to five more years, and retire at ages similar to other workers under Social Security. (That is, about one-third would begin collecting pension benefits at age 62 and about one-half at age 65.) The postponed retirements would reduce PBGC outlays—net of reimbursements from the pension plans—by \$9 million in 2008, \$57 million over the 2008-2012 period, and \$56 million over the 2008-2017 period. However, because the PBGC guarantees are intended to be actuarially fair, the net impact of the retirement age change would likely be only a small increase and result from the fact that the pilots affected would probably be significantly healthier than the general population of pension recipients.

Third-Party Financing of Investments in Modernization. CBO estimates the pilot program authorized by S. 1300 to allow state and local governments, including airports, to use FAA contracts to finance investments related to Automatic Dependent Surveillance-Broadcast (ADS-B) technology would increase direct spending by \$10 million in 2008 and \$60 million over the 2008-2017 period.

ADS-B Technology. Under current law, one of the major air traffic control modernization programs underway involves the use of ADS-B technology. With ADS-B, ground stations and aircraft transponders will send and receive information, via satellite, to provide more accurate information on the location of aircraft, which will enable air traffic controllers and pilots to use airspace more safely and efficiently. Using existing authorities, the FAA currently plans to broadly implement ADS-B technology for use of U.S. airspace. The agency plans to award a contract this summer to allow a vendor to install, operate, and

maintain ADS-B ground stations, and is pursuing a rulemaking to require air carriers to install necessary avionics equipment. Under such a contract, which could cover up to 18 years, the vendor will finance the acquisition, installation, operation, and maintenance of ADS-B ground stations nationwide in exchange for annual payments from the FAA.

Budgetary Treatment of ADS-B Contracts. Using long-term contracts to involve nonfederal parties in financing the cost of capital spending for ADS-B ground stations—particularly to acquire and install such equipment—constitutes direct spending when the legal obligation of the federal government in such contracts is not covered by a full up-front discretionary appropriation. Upon entering into such contracts, the government becomes obligated to make payments in the future. Thus, consistent with government-wide accounting principles, the budget should record those commitments as new obligations at the time the government enters into such contracts.

Increased Spending for ADS-B Under S. 1300. This cost estimate does not include costs related to the ADS-B contract the agency is pursuing under current law; however, it does reflect increased direct spending authorized by the bill for expanding the use of third-party financing of capital spending for ADS-B ground stations. Specifically, S. 1300 would establish a pilot program to allow up to 10 state and local governments, including airports, to use FAA contracts to install, operate, and maintain ADS-B ground stations. Based on information from the FAA on the anticipated cost to acquire and install such systems, CBO estimates that increased spending would total \$60 million over the 2008-2011 period.

Aviation Insurance. Under current law, the FAA offers a commercial aviation insurance program that, in exchange for a premium payment, insures air carriers and certain manufacturers against liabilities arising from losses caused by terrorist events. The FAA also offers a nonpremium insurance program to air carriers that participate in the Civil Reserve Air Fleet (CRAF). The FAA's authority to operate both of those programs is scheduled to expire on March 30, 2008. S. 1300 would extend that authority through October 1, 2017. CBO estimates that extending the CRAF program through that time would have no significant budgetary impact; however, extending the FAA's authority to offer commercial aviation insurance through fiscal year 2017 would reduce net direct spending by \$30 million over the 2008-2017 period. Over the long run, however, we estimate that extending the authority to operate the program would result in net costs to the federal government after 2017.

Initial savings under this provision of S. 1300 result because the FAA would collect premiums in full when coverage is sold, while payments for expected losses would begin slowly and occur over several years. For this estimate, CBO assumes that the FAA would continue to offer commercial aviation insurance at rates that would not fully offset the government's cost of providing that coverage. Based on information from the FAA about

current insurance rates, CBO estimates that increased offsetting receipts from premiums (which are credited against direct spending) would total just over \$1.8 billion over the 2008-2017 period. We also estimate that total expected losses for claims will total \$3.3 billion, resulting in net nominal costs over time of \$1.5 billion. Of those total claims payments, however, we expect that just under \$1.8 billion would be spent over the 2008-2017 period, resulting in net cash-flow savings of \$30 million over that period. Remaining cash outlays for claims would occur after 2017.

CBO cannot predict how much insured damage terrorists might cause in any specific year. Instead, our estimate of the cost of insurance coverage under S. 1300 represents an expected value of payments from the program—a weighted average that reflects the probabilities of various outcomes, from zero damages up to very large damages due to possible future terrorist attacks. The expected value can be thought of as the amount of an insurance premium that would be necessary to just offset the risk of providing this insurance; indeed, our estimate of the expected cost for S. 1300 is based on private-sector premiums for terrorism insurance that have been adjusted for differences in costs faced by private insurance firms that are not borne by the federal government. While this cost estimate reflects CBO's best judgment on the basis of available information, costs are a function of inherently unpredictable future terrorist attacks. As such, actual costs could fall anywhere within an extremely broad range.

Revenues

CBO and JCT estimate that enacting S. 1300 would increase net revenues by \$60 million over the 2008-2012 period and \$109 million over the 2008-2017 period. Those changes stem from provisions related to overflight fees and passenger facility fees.

Overflight Fees. S. 1300 would amend current law to authorize the FAA to increase fees for certain navigational services provided for flights that neither take off nor land in the United States—commonly known as overflight fees. Such fees are typically paid by foreign air carriers and are recorded as revenues. S. 1300 would direct the agency to update the amounts charged, through an expedited rulemaking, to fully recover its costs starting in fiscal year 2009. Based on information from the agency, CBO estimates that the agency's costs to provide support for overflights currently exceeds revenues from fees by about \$18 million annually. CBO estimates the resulting increase in revenues would total \$74 million over the 2009-2012 period and \$177 million over the 2009-2017 period. (As discussed earlier, under the bill, those increased revenues would result in corresponding increases in direct spending for certain activities related to the Essential Air Service program.)

Passenger Facility Fees. S. 1300 would direct the Secretary of Transportation to establish a pilot program to allow participating authorities to increase passenger facility fees under certain circumstances. JCT expects that the proposed program would increase passenger facility fees, subsequently lead to increased tax-exempt financing for airport construction and related projects and, consequently, reduce federal revenues. JCT estimates that federal revenue losses would total \$14 million over the 2008-2012 period and \$69 million over the 2008-2017 period.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

S. 1300 contains intergovernmental mandates as defined in UMRA. Specifically, the bill would give the FAA the right to (1) access criminal justice data maintained by the states, (2) use state or local radio, data links, or warning systems that provide public safety information, and (3) receive communications from state or local police officers. These provisions constitute intergovernmental mandates as defined in UMRA because state and local governments would be required to comply with requests for information from the FAA. Although we cannot predict the extent to which the FAA would access state or local data systems, or make inquiries of state or police officers, CBO estimates that the additional costs to state, local, and tribal governments of complying with these mandates would be small and would not exceed the threshold established in UMRA (\$66 million in 2007, adjusted annually for inflation).

Other provisions of the bill would benefit public institutions of higher education by authorizing grants for aviation research, and would benefit states by providing grants for airport planning, noise abatement, environmental reviews and other airport-related projects. Any costs those entities might incur would result from complying with conditions of federal assistance.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

S. 1300 contains several private-sector mandates as defined in UMRA. Those mandates include but are not limited to:

- A new surcharge on flights in airspace controlled by the FAA,
- A prohibition on operating certain aircraft not in compliance with low-noise criteria,
- Safety requirements for helicopters used in emergency medical service, and
- Requirements on air carriers related to airline service and cabin crews.

Based on information from the FAA and industry sources, CBO estimates that the aggregate direct cost of complying with those mandates would exceed the annual threshold established in UMRA for private-sector mandates (\$131 million in 2007, adjusted annually for inflation) in each of the first five years the mandates are in effect.

Flight Surcharge

Section 106 would impose a \$25 surcharge per flight on commercial airline, general aviation jet, and turboprop flights which use airspace controlled by the FAA. According to the FAA, the surcharge would apply to about 16.5 million flights. Based on those data, the cost for private-sector entities to comply with the mandate would be at least \$400 million per year and would exceed UMRA's annual threshold each year.

Prohibition on Aircraft Noise Levels Below Stage 3

The FAA classifies aircraft into three stages based on measurements of noise level: stage 1, stage 2, and stage 3 in order from loudest to the least noisiest. Section 711 would prohibit, with certain exemptions, operation of aircraft weighing 75,000 pounds or less in the United States that do not comply with stage 3 noise levels. The prohibition would take effect five years after the date of enactment. According to industry sources, compliance would require engine modifications on existing aircraft when possible, or replacement of aircraft that cannot be modified to meet the noise requirement. Those sources estimate the cost of compliance could range from a low of \$300 million to more than \$1 billion depending on how the aircraft are made to comply.

Helicopter Emergency Medical Service Safety Requirements

Section 508 would require operators of helicopters for emergency medical service to comply with operating procedures whenever there is a medical crew on board. It also would require all helicopters acquired after the bill's enactment to have an operational terrain awareness and warning system that meets certain FAA specifications. The bill would require flight operators to use a standardized checklist of risk evaluation factors and standardized dispatch procedures both to be developed by FAA rulemakings. In addition, the bill would require flight data and cockpit voice recorders on all helicopters used in such service. Due to a lack of information on the specific standards to be established by the FAA, CBO cannot estimate the incremental costs that would result from compliance with those standards.

Air Carriers: Airline Service and Cabin Crew Requirements

The bill would impose several new requirements on air carriers related to airline service. Section 401 would require air carriers to develop contingency plans to handle situations in which the departure of a flight is substantially delayed with passengers onboard. The plan would be required to outline how the air carrier would ensure that passengers are provided adequate food, potable water, and restroom facilities as well as timely and accurate information regarding the status of the flight. Section 402 would require each air carrier to publish, and update monthly, on its Web site, the on-time performance of chronically delayed, cancelled, or diverted flights. In addition, air carriers would have to disclose the on-time performance for a chronically delayed flight and cancellation rates when customers book flights on their Web sites. The bill also would require air carriers to post a statement on such sites detailing a customer service policy and consumer rights related to air carriers under federal and state law. Based on information from industry sources, CBO expects that the direct cost to comply with the mandates would be small relative to UMRA's annual threshold.

S. 1300 also would impose requirements on air carriers related to the English language skills of their cabin crews. Section 509 would prohibit an air carrier from using any person as a flight attendant on flights taking off or landing in the United States unless the person has the ability to read, speak, and write English. Based on information from industry sources, CBO expects that the direct cost to comply with this mandate would be minimal relative to the annual threshold.

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