

# **THE AEROSPACE CORPORATION RETIREE MEDICAL PLAN**

SEPTEMBER 30, 2016 VALUATION FUNDING  
AND COST ACCOUNTING FINANCIAL REPORT  
FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2017

APRIL 2017

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## Executive Summary

This report has been prepared by Mercer for The Aerospace Retiree Medical Plan’s Named Fiduciaries to present the results of the valuation of the Aerospace Retiree Medical Plan (“the Plan”) as of September 30, 2016. The purpose of this valuation is to:

- Present the funded status of the Plan as of September 30, 2016
- Review experience under the Plan for the fiscal year ended September 30, 2016
- Determine the reimbursable funding amount (CAS expense) for the Plan for the fiscal year ending September 30, 2017 in accordance with applicable Cost Accounting Standards.

### CAS Expense/Plan Contribution

The CAS expense/plan contribution for the fiscal years ending September 30, 2016 and September 30, 2017 are:

	Fiscal Year Ending	
	September 30, 2016	September 30, 2017
Contribution (end of year)	\$ 0	\$ 0

No contribution is required or reimbursable for the fiscal year ending September 30, 2017.

### Impact of Health Care Reform

The results do not reflect the excise tax under health care reform ("Patient Protection and Affordability Act") applicable to "high cost" coverage beginning in 2020. The Defined Dollar Benefit (DDB) limits the amount of benefit provided by the Plan and those limits are expected to be below the excise tax thresholds applicable in 2020, so the tax is expected to be paid by the retirees.

### Assets

The assets increased from \$149.7 million as of September 30, 2015 to \$156.5 million as of September 30, 2016. Employer contributions were \$0 and retiree cost sharing was \$6.3 million. Investment return was \$14.3 million and investment manager fees were \$0.1 million. Premium disbursements were \$14.3 million. In addition, there was a Blue Cross refund of \$0.6 million.

The approximate return on assets was 9.7% for the fiscal year ending September 30, 2016 as compared to last year’s long-term return assumption of 7.0%.

## Changes Since the Prior Valuation

The accumulated postretirement benefit obligation as of September 30, 2016 and the CAS expense/plan contribution for the fiscal year ending September 30, 2017 reflect the following changes:

### Changes in actuarial assumptions

- Initial annual premium costs and initial annual benefits costs were updated for the 2017 fiscal year.
- Trend schedule was updated for the 2017 fiscal year.
- Withdrawal, retirement, and disability assumptions were updated to reflect the results of the 2016 experience study.
- Spouse age difference was changed to reflect the results of the 2016 experience study.
- Discount rate was updated from 7.00% to 6.75%.

The following table shows the effects of these changes on the accumulated postretirement benefit obligation as of September 30, 2016 and the CAS expense/plan contribution for the fiscal year ending September 30, 2017.

(Thousands of Dollars)	Before Changes	Demographic Assumption Changes	Medical Assumption Changes	Discount Rate Change
Accumulated postretirement benefit obligation – 9/30/16	\$ 140,702	\$ 137,082	\$ 131,857	\$ 135,736
CAS expense/plan contribution – 9/30/17				
Service cost	\$ 2,915	\$ 2,658	\$ 2,556	\$ 2,692
Interest cost	9,567	9,315	8,958	8,900
(Expected return on assets)	(10,682)	(10,684)	(10,693)	(10,311)
Net amortization	0	0	0	0
(Assignable cost limitation credit)	(1,800)	(1,289)	(821)	(1,281)
Total at end of year	\$ 0	\$ 0	\$ 0	\$ 0

The plan had an experience loss of \$2.8 million due to a \$3.0 million asset loss<sup>1</sup> and a \$0.2 million demographic gain. Additionally, demographic assumption changes decreased the liability by \$3.6 million and updating the medical cost and trend rates decreased the liability by \$5.2 million. Decreasing the discount rate increased the liability by \$3.9 million.

<sup>1</sup> The asset method smooths gains and losses over a 4-year period. The \$3.0 million loss is mainly due to investment gains in FY13 and FY14 offset by losses in FY15. On a market value basis, the 2015 return was 9.7%. This gain will be reflected in the actuarial value of assets over a 4-year period.

## Funded Status

The funded status (market value basis) increased from 109.8% as of September 30, 2015 to 115.3% as of September 30, 2016. The increase is mainly due to demographic assumption changes, unchanged DDB amounts from prior year and favorable returns on assets, offset by the discount rate change.

(Thousands of Dollars)	September 30, 2015	September 30, 2016
Accumulated postretirement benefit obligation	\$ 136,314	\$ 135,736
Market value of assets	\$ 149,713	\$ 156,508
Funded status	109.8%	115.3%

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## Important Notices

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Mercer has prepared this report exclusively for the Aerospace Retiree Medical Plan's Named Fiduciaries for the following purposes:

- Present the results of a valuation of the Aerospace Retiree Medical Plan as of October 1, 2016
- Provide the plan sponsor with the CAS 412 reimbursable expense for the year ending September 30, 2017

This valuation report may not be relied upon for any other purpose or by any party other than the Aerospace Retiree Medical Plan's Named Fiduciaries. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, *actuarial assumptions*, as described in the report titled *The Aerospace Corporation Retiree Medical Plan Data, Assumptions, Methods, and Provisions as of September 30, 2016*, which Mercer issued in April 2017, are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in federal statutes and regulations, plan experience, changes in expectations about the future and other factors.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

### Data



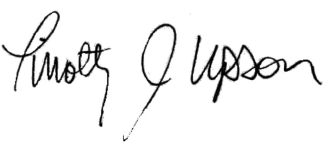
To prepare this report, Mercer has used and relied on financial data submitted by The Aerospace Corporation without further audit. We have also used and relied on participant data supplied by the plan sponsor; this data customarily would not be verified by a plan's actuary. We have reviewed the participant data for internal consistency and reasonableness and have no reason to doubt its substantial accuracy. Finally, we have used and relied on the plan documents, including amendments, supplied by the plan sponsor. The plan sponsor is solely responsible for the validity and completeness of this information.

### CAS Expense/Plan Contribution

In computing the CAS expense/plan contribution, all costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. Funding calculations reflect the provisions of current federal statutes and regulations issued thereunder. In our opinion, the actuarial assumptions are reasonable and represent our best estimate of the anticipated experience under the plan. This report fully and fairly discloses the actuarial position of the plan on an ongoing basis and the costs comply with the requirements of CAS 412.

### Professional Qualifications

We are available to answer any questions on the material contained in this report or to provide explanations or further details as appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

	<p style="text-align: right;">April 27, 2017</p> <hr style="border: 0.5px solid black;"/> <p style="text-align: right;"><b>Date</b></p>
<p><b>Christine Chapman, ASA, EA</b></p>	
	<p style="text-align: right;">April 27, 2017</p> <hr style="border: 0.5px solid black;"/> <p style="text-align: right;"><b>Date</b></p>
<p><b>Gloria Y. Kuo, ASA, EA</b></p>	
<p>I have reviewed and found acceptable the actuarial assumptions, methods, and procedures used in the Retiree Medical valuation.</p>	
	<p style="text-align: right;">April 27, 2017</p> <hr style="border: 0.5px solid black;"/> <p style="text-align: right;"><b>Date</b></p>
<p><b>Timothy J. Upson, FSA, MAAA</b></p>	
<p>Mercer (US) Inc.              777 South Figueroa Street, Suite 2400              Los Angeles, CA 90017              +1 213 346 2200</p>	

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## Valuation Results

### Plan Assets

#### *Market Value of Assets*

The changes in the market value of plan assets during the fiscal years ending September 30, 2015 and September 30, 2016 are summarized below:

<b>Market Value of Plan Assets</b>	<b>Fiscal Year Ending September 30, 2015</b>	<b>Fiscal Year Ending September 30, 2016</b>
Market Value of Assets at Beginning of Year	\$ 156,557,067	\$ 149,713,134
Employer Contributions	0	0
Blue Cross Refund	584,002	611,218
Retiree Cost-Sharing	6,180,400	6,303,768
Premium Disbursements	(13,688,713)	(14,304,707)
Manager Fees	(164,357)	(152,238)
Net Investment Earnings	244,735	14,337,150
Market Value of Assets at End of Year	<b>\$ 149,713,134</b>	<b>\$ 156,508,325</b>
Approximate Return on Assets	0.2%	9.8%
Approximate Return on Assets, Net of Manager Fees	0.1%	9.7%



***Development of Investment Gains/(Losses)***

The investment gains/(losses) during the fiscal year ending September 30, 2016 are shown below:

1. Market value at beginning of year	\$	149,713,134
2. Contribution		
a. Employer contributions		0
b. Retiree cost-sharing		6,303,768
c. Total		6,303,768
3. Premium Disbursements*		(13,693,489)
4. Expected earnings		
a. On 1.		10,479,919
b. On 2.a.		0
c. On 2.b.		220,632
c. On 3.		(479,272)
e. Total		10,221,279
5. Expected assets at end of year (1. + 2.c. + 3. + 4.e.)	\$	152,544,692
6. Market value at end of year	\$	156,508,325
7. Asset gains/(losses) for the year (6. - 5.)	\$	3,963,633

\* Reflects a refund of \$0.6 million from Blue Cross

### **Actuarial Value of Assets**

Starting on October 1, 2006, the actuarial value of assets is equal to the market value of assets adjusted by a percentage of gains and losses arising during the four prior years. The resulting value must be within 20% of the market value.

1. Market Value of Assets as of September 30, 2016	\$	156,508,325
2. (Gains)/Losses for Plan Year Ending		
a. September 30, 2016		(3,963,633)
b. September 30, 2015		10,636,266
c. September 30, 2014		(4,906,698)
d. September 30, 2013		(6,046,802)
3. Unrecognized (Gains)/Losses		
a. 100% of 2.a.		(3,963,633)
b. 50% of 2.b.		5,318,133
c. 25% of 2.c.		(1,226,675)
d. 0% of 2.d.		0
e. Total		(127,825)
4. Preliminary Actuarial Value of Assets		
a. Market Value		156,508,325
b. Deferred (Gains)/Losses		(127,825)
c. Actuarial Value of Assets (a. - b.)		156,636,150
5. 80% of Market Value		125,206,660
6. 120% of Market Value		187,809,990
7. Actuarial Value of Assets as of September 30, 2016	\$	156,636,150

## Funded Status

The funded status as of September 30, 2015 and September 30, 2016 is as follows:

<b>Funded Status as of September 30, 2015 (7.00%)</b>		<b>Benefits Before Medicare Eligibility</b>	<b>Benefits After Medicare Eligibility</b>	<b>Total</b>
Accumulated postretirement benefit obligation				
Retirees Tier A:	Medicare-eligible	\$ 594,711	\$ 61,211,890	\$ 61,806,601
	Non Medicare-eligible	716,661	3,999,199	4,715,860
	Total	1,311,372	65,211,089	66,522,461
Retirees Tier B:	Medicare-eligible	141,720	5,076,896	5,218,616
	Non Medicare-eligible	335,275	1,580,885	1,916,160
	Total	476,995	6,657,781	7,134,776
Actives Tier A:	Fully eligible	1,443,992	22,197,373	23,641,365
	Other	438,227	2,498,149	2,936,376
	Total	1,882,219	24,695,522	26,577,741
Actives Tier B:	Fully eligible	0	1,492,418	1,492,418
	Other	3,965,614	30,620,623	34,586,237
	Total	3,965,614	32,113,041	36,078,655
<b>Total</b>		<b>\$ 7,636,200</b>	<b>128,677,433</b>	<b>136,313,633</b>
(Actuarial value of assets)				(156,384,350)
<b>Unfunded (surplus) accumulated postretirement benefit obligation</b>				<b>\$ (20,070,717)</b>

<b>Funded Status as of September 30, 2016 (6.75%)</b>		<b>Benefits Before Medicare Eligibility</b>	<b>Benefits After Medicare Eligibility</b>	<b>Total</b>
Accumulated postretirement benefit obligation				
Retirees Tier A:	Medicare-eligible	\$ 596,488	\$ 60,808,830	\$ 61,405,318
	Non Medicare-eligible	545,831	3,622,538	4,168,369
	Total	1,142,319	64,431,368	65,573,687
Retirees Tier B:	Medicare-eligible	141,475	6,267,158	6,408,633
	Non Medicare-eligible	343,099	\$1,660,112	2,003,211
	Total	484,574	7,927,270	8,411,844
Actives Tier A:	Fully eligible	1,214,248	21,947,323	23,161,571
	Other	233,948	1,781,961	2,015,909
	Total	1,448,196	23,729,284	25,177,480
Actives Tier B:	Fully eligible	0	1,709,121	1,709,121
	Other	2,961,024	31,902,714	34,863,738
	Total	2,961,024	33,611,835	36,572,859
<b>Total</b>		<b>\$ 6,036,113</b>	<b>\$ 129,699,757</b>	<b>\$ 135,735,870</b>
(Actuarial value of assets)				(156,636,150)
<b>Unfunded (surplus) accumulated postretirement benefit obligation</b>				<b>\$ (20,900,280)</b>

## Changes in Accumulated Postretirement Benefit Obligation

Accumulated postretirement benefit obligation at September 30, 2015		<b>\$ 136,313,633</b>
Increase/(Decrease) during year attributable to:		
Benefits earned		2,749,963
Payments to provide medical coverage to participants or beneficiaries		(14,304,707)
Participant contributions		6,303,768
Blue Cross refund		611,218
Interest		9,283,314
Actuarial (gains)/losses due to:		
Experience	\$	(254,946)
Demographic assumption changes		(3,620,159)
Medical assumption and DDB updates		(5,225,502)
Discount rate change		3,879,288
Total		(5,221,319)
Net increase/(decrease)		(577,763)
Accumulated postretirement benefit obligation at September 30, 2016		<b>\$ 135,735,870</b>

## CAS Expense and Plan Contribution

The components of the CAS expense for the fiscal years ending September 30, 2016 and September 30, 2017 are as follows:

	Fiscal Year Ending September 30, 2016	Fiscal Year Ending September 30, 2017
<b>1. CAS Expense/Plan Contribution</b>		
a. Service cost at end of year	\$ 2,749,963	\$ 2,692,189
b. Interest on accumulated postretirement benefit obligation	9,271,431	8,900,240
c. (Expected return on assets)	(10,676,381)	(10,311,009)
d. (Amortization of gain (loss)) <sup>*</sup>	0	0
e. Assignable cost credit	0	0
f. CAS expense/plan contribution before consideration of year end expected deficit (surplus) (1.a + 1.b + 1.c + 1.d + 1.e)	1,345,013	1,281,420
g. (Surplus) available to cover CAS expense (2.e, if less than 0, but not less than -1.f)	(1,345,013)	(1,281,420)
<b>h. CAS expense/plan contribution at end of year (1.f – 1.g)</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>2. Year end expected deficit (surplus)</b>		
a. Accumulated postretirement benefit obligation	\$ 136,313,633	\$ 135,735,870
b. Service cost at beginning of year	2,570,059	2,521,957
c. (Actuarial value of assets)	(156,384,350)	(156,636,150)
d. Interest to end of year	(1,225,046)	(1,240,537)
<b>e. Expected deficit (surplus) (2.a. + 2.b. + 2.c + 2.d)</b>	<b>\$ (18,725,704)</b>	<b>\$ (19,618,860)</b>
<b>3. Expected Plan Benefit Payments and Expenses</b>		
a. Expected plan benefit payments (net of retiree cost sharing) during the year	\$ 7,729,236	\$ 7,760,937
b. Actual plan benefit payments (net of retiree cost sharing) during the year	\$ 7,389,721	N/A

<sup>\*</sup> Gain/loss includes assumption changes.

## Actuarial Experience

Under the Plan's funding method, actuarial experience is measured by comparing the expected unfunded liability, as if all actuarial assumptions had been met, with the actual unfunded liability at the valuation date. If the expected unfunded liability exceeds the actual unfunded liability, there is an actuarial gain; conversely, if the expected unfunded liability is less than the actual unfunded liability, there is an actuarial loss.

	<b>Accumulated Postretirement Benefit_Obligation</b>	<b>Actuarial Value of Assets</b>	<b>Unfunded (Surplus) Obligation</b>
<b>Gain (Loss)</b>			
Amount on September 30, 2015	\$ 136,313,633	\$ 156,384,350	\$ (20,070,717)
Interest at 7.00% on amount on September 30, 2015	9,541,954	10,946,905	(1,404,951)
Service cost at end of year	2,749,963	N/A	2,749,963
Employer contributions	N/A	0	0
Interest on employer contributions	N/A	0	0
Retiree cost-sharing	6,303,768	6,303,768	N/A
Interest on retiree cost-sharing	220,632	220,632	N/A
(Premium disbursements)*	(13,693,489)	(13,693,489)	N/A
(Interest on premium disbursements)	(479,272)	(479,272)	N/A
Expected amount on September 30, 2016	\$ 140,957,189	\$ 159,682,894	\$ (18,725,705)
Actual amount on September 30, 2016 before changes	140,702,243	156,636,150	(15,933,907)
<b>Liability gain (loss)/asset loss (gain)</b>	<b>\$ 254,946</b>	<b>\$ 3,046,744</b>	<b>\$ (2,791,798)</b>
<b>Actuarial (gain)/loss</b>			<b>\$ 0</b>
<b>Actual amount on September 30, 2016 with changes</b>			
Before demographic assumption changes	\$ 140,702,243	\$ 156,636,150	\$ (15,933,907)
Demographic assumption changes	(3,620,159)	N/A	(3,620,159)
After demographic assumption changes	\$ 137,082,084	\$ 156,636,150	\$ (19,554,066)
Medical assumption changes	(5,225,502)	N/A	(5,225,502)
After medical assumption changes	\$ 131,856,582	\$ 156,636,150	\$ (24,779,568)
Discount rate change	3,879,288	N/A	3,879,288
After financial assumption changes	\$ 135,735,870	\$ 156,636,150	\$ (20,900,280)

\*Reflects a refund of \$0.6 million from Blue Cross

**Development of the Prepayment Credit under CAS 412**

	<b>Fiscal Year Ending September 30, 2016</b>	
1. Prepayment Credit, October 1, 2015	\$	0
2. Contributions in Excess of Reimbursements		0
3. (Reimbursements in Excess of Contributions)		0
4. Interest at Actuarial Assumption Rate		0
5. Prepayment Credit, October 1, 2016 (1. + 2. + 3. + 4.)		0

## **Amortization Schedule**

Amortization bases are considered fully amortized because the unfunded liability was zero as of October 1, 2016.



## Balancing Equation

	<b>Fiscal Year Ending September 30, 2017</b>	
1. Actuarial asset value	\$	\$156,636,150
2. Actuarial accrued liability		135,735,870
3. Unfunded actuarial liability (2. – 1.)		(20,900,280)
4. Present value of payments to amortize unfunded actuarial accrued liability		0
5. Current value of unassignable portions in accordance with CAS 412-50(a)(2)		0
6. Total (4. + 5.)	\$	0

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## Data, Assumptions, Methods, and Provisions

This report is based on the participant data, assumptions, methods, and provisions summarized in the report titled *The Aerospace Corporation Retiree Medical Plan Data, Assumptions, Methods, and Provisions as of September 30, 2016*, which Mercer issued in April 2017.

A copy of the above-name report is available from Mercer upon request by an authorized user of this report.



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