ANGELL

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September 9, 2020

PERSONAL & CONFIDENTIAL
SENT VIA EMAIL ONLY

Mr. Ted Przybyla
Office of the Treasurer
Town of Scituate
P.O. Box 127
195 Danielson Pike
North Scituate, RI 02857

Re: Town of Scituate Retirement Plan for the Police Department Employees

Dear Ted:

Enclosed please find the Actuarial Valuation Report as of April 1, 2020, which outlines the funding requirements and summarizes the current position of the above-referenced plan.

This valuation includes the plan provisions included in the Collective Bargaining Agreement through June 30, 2021.

It is our understanding that the Town of Scituate should provide a copy of this valuation to the State of Rhode Island by September 30, 2020 as required by the Rhode Island Retirement Security Act of 2011.

If you have any questions regarding the enclosed material, please call me at extension 202.

Sincerely,

Matthew Crawford
Defined Benefit Administrator
MCrawford@AngellPensionGroup.com

Enclosures

TOWN OF SCITUATE RETIREMENT PLAN

FOR THE POLICE DEPARTMENT EMPLOYEES

VALUATION AS OF APRIL 1, 2020

Prepared By:

The Angell Pension Group, Inc.
88 Boyd Avenue
East Providence, RI 02914
Telephone (401) 438-9250

September 2020

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I. INTRODUCTION

This report presents the results of the actuarial valuation as of April 1, 2020 of the Town of Scituate Retirement Plan for the Police Department Employees. The purpose of this report is to illustrate the current position of the plan and to present information which will assist the Town of Scituate in determining the contribution levels which are sufficient to meet accruing liabilities and to maintain the plan on a sound actuarial basis.

The major provisions of the plan upon which this valuation is based are outlined in Section III. The valuation reflects the terms of the Collective Bargaining Agreement which is effective from July 1, 2019 through June 30, 2021.

This valuation was prepared on the basis of information submitted to The Angell Pension Group, Inc. in the form of payroll and asset data, as well as ancillary material pertaining to the plan. We have not independently verified, nor do we make any representations as to, the accuracy of such information.

Jeffrey C. Liter, Ph.D., E.A., M.A.A.A. Enrolled Actuary	09/09/2020 Date

II. SUMMARY OF PLAN CONTRIBUTIONS

1.	Accrued Liability			
	a.	Actives	$ 4,210,950	
	b.	Terminated Vested	73,530	
	c.	Disabled	2,452,171	
	d.	Retirees	11,333,313	
	e.	Total		$ 18,069,964
2.	Plan Assets			5,697,003
3.	Unfunded Accrued Liability [(1d) - (2)]			$ 12,372,961
4.	Normal Cost			
	a.	Retirement	$ 173,813	
	b.	Death	1,807	
	c.	Disability	24,537	
	d.	Total		$ 200,157
5.	17 Year Amortization of (3) (Payments assumed to increase by 3.0% per year)			970,194
6.	Interest on (4d) and (5) (Assumes Mid-Year Payment on October 1, 2020)			40,962
7.	17 Year Amortization Contribution payable October 1, 2020 [(4d) + (5) + (6)]			$ 1,211,313*

* Town of Scituate's portion of the contribution for the fiscal year beginning April 1, 2020 will be the $1,211,313 reduced by the actual amount of employee contributions.

III. SUMMARY OF PLAN PROVISIONS

Eligibility Requirements:

All regular or permanent police of the Town of Scituate, Rhode Island, following completion of a six month waiting period. Only employees hired before July 1, 2014 are eligible to participate.

Normal Retirement Date:

For participants hired prior to June 30, 2000, upon completion of 20 Years of Service, the participant is eligible for normal retirement. Alternatively, a participant may continue in service beyond 20 years. For participants hired on or after July 1, 2000, upon completion of 25 Years of Service the participant is eligible for normal retirement.

A participant may retire upon the completion of ten years of service or the attainment of age 56, whichever is later.

Compensation:

The monthly equivalent of a Participant's annual compensation, including longevity pay and holiday pay, but exclusive of bonuses, overtime and other forms of additional compensation, and exclusive of any program of deferred compensation, employee benefits or additional remuneration payable other than in cash.

Average Compensation:

Compensation of a participant averaged over three (3) years as an employee prior to the earlier of (1) his termination of Service, (2) his retirement or (3) termination of the Plan.

Normal Retirement Benefit:

For participants hired on or prior to June 30, 2000, a benefit equal to 2.5% of Average Compensation times the first 20 years of service, plus 2% of Average Compensation times years of service in excess of 20 years. Maximum benefit is 60% of Average Compensation. For participants hired on or after July 1, 2000, a benefit equal to 2.4% of Average Compensation times the first 25 years of service. Maximum benefit is 60% of Average Compensation.

Normal Form of Benefit:

Life annuity for single participants and an unreduced 67.5% Joint and Survivor Annuity for married participants.

Death Benefit for Actives not yet Eligible for Normal Retirement:

In the event of death of a member, while employed, benefits shall be according to the state law as to Police Pensions.

Upon death of a member due to occupational causes:

(a) Total Employee Mandatory Contributions.

(b) A payment of $800 for each year of service up to $16,000. Minimum Lump Sum: $4,000.

(c) A spouse's benefit equal to 50% of Participant's Average Compensation for spouse's life or until she remarries, if earlier plus 10% of Participant's Average Compensation for each child until the child attains age 18; subject to an overall maximum of 66⅔% of Participant's Average Compensation.

Upon death of a member due to non-occupational causes:

(a) Total Employee Mandatory Contributions.

(b) A payment of $800 for each year of service up to $16,000. Minimum Lump Sum: $4,000

(c) A spouse's benefit equal to 30% of Participant's Average Compensation for spouse's life or until she remarries, if earlier plus 10% of Participant's Average Compensation for each child until the child attains age 18; subject to an overall maximum of 50% of Participant's Average Compensation.

Death Benefit for Actives Eligible for Normal Retirement:

For active married participants, spouse shall receive a monthly benefit of 67.5% of the participant's accrued benefit payable for spouse's life or if earlier, until the spouse remarries. If there is no surviving spouse, each child of the Participant under the age of eighteen (18) shall share equally in the 67½% of the monthly retirement benefit until the last such child of the Participant shall have attained age eighteen (18). In addition, a payment of $800 for each year of service up to $16,000 (Minimum Lump Sum: $4,000).

Post-Retirement Death Benefit:	For retired married participants, spouse shall receive a monthly benefit of 67.5% of the participant's accrued benefit payable for spouse's life or if earlier, until the spouse remarries. If there is no surviving spouse, each child of the Participant under the age of eighteen (18) shall share equally in the 67½% of the monthly benefit until the last such child has attained age eighteen (18). In addition, a payment of $800 for each year of service up to $16,000. The lump sum death benefit is reduced by 25% for each year following retirement subject to a minimum benefit of $4,000.
Disability:	Upon becoming disabled due to occupational causes, a benefit equal to 66⅔% of the participant's Average Compensation payable for the period of disability. Upon becoming disabled due to non-occupational causes after completing 7 years of service, a benefit equal to 1⅔% of the participant's Average Compensation for each year of credited service, but not less than 25% and not greater than 50%.
Termination of Employment:	With less than ten years of service, a refund of employee contributions. A member who terminates after ten years of service will be eligible to receive a pension commencing at age 56 equal to his or her accrued benefit.
Funding:	Effective July 1, 2015, the members of the Plan shall each contribute 12% of Compensation and the Town of Scituate shall contribute 10% of Compensation earned by each member.
Cost of Living Adjustment:	For retirees prior to July 1, 2003 the Cost of Living Adjustment is equal to the negotiated rate of salary increase times 30% compounded annually. For retirees on or after July 1, 2003, who were hired on or before July 1, 2012, the Cost of Living Adjustment is equal to 3% of the initial retirement benefit (non-compounded). This COLA is deferred for a period of 3 years for any member who retires after June 30, 2015 (COLA begins in the 4th year after date of retirement).

IV. ACTUARIAL COST METHODS

A. Actuarial Cost Method

Costs have been computed in accordance with the Entry Age Normal Cost Method.

The normal cost is the sum of the normal costs for all participants. For a current participant, the individual normal cost is the participant's normal cost accrual rate multiplied by the participant's current compensation. The normal cost accrual rate equals (a) the present value of future benefits as of the participant's entry age divided by (b) the present value of future compensation as of the participant's entry age. For other than a current participant, the normal cost equals $0.

The accrued liability is the sum of the individual accrued liabilities for all participants. The individual accrued liability is equal to the present value of future benefits less the normal cost accrual rate multiplied by the present value of future compensation.

B. Asset Valuation Method

The assets used to determine plan costs are equal to the current market value, as of March 31, 2020.

C. Changes

Effective with the April 1, 2013 valuation, the amortization of the unfunded accrued liability is over a 25 year period that declines by one each year effective back to April 1, 2012. The amortization period as of April 1, 2020 is 17 years.

V. ACTUARIAL ASSUMPTIONS

Actuarial Assumptions are estimates as to the occurrence of future events affecting the costs of the plan such as mortality rates, withdrawal rates, changes in compensation level, retirement ages, rates investment earnings, expenses, etc. The assumptions have been chosen to anticipate the long-range experience of the plan. The appropriateness of the assumptions should be viewed on an aggregate basis rather than individually, inasmuch as each interacts with the other.

The actuarial assumptions used to compute this year's plan costs are as follows:

Investment Return:	7.00% per annum. The assumed rate of return is derived net of spending, taxes and investment expenses.
Pre and Post Retirement Mortality:	PubS-2010 Employee/Healthy Retiree with Scale MP-2019 Generational Improvements (Male/Female).
Disability Mortality:	PubS-2010 Disabled Retiree with Scale MP-2019 Generational Improvements (Male/Female).
Terminations:	None
Salary Increases:	3.00% per annum
Occupational Disability:	Occupational disability equal to 3 times the 1974 Railroad Retirement Board Incidence
Assumed Retirement Age:	The completion of 25 Years of Service
Spousal Death Benefit:	75% of active participants are assumed married with one child under age 18. The female spouse is assumed to be 4 years younger than the male spouse.
Cost-of-Living Increases:	A 3.0% non-compounded COLA for active members who retire on or after July 1, 2003. For members who retired before July 1, 2003, 30% of the negotiated salary increase, compounded annually.
Administrative Expenses:	Assumed paid by the Town

SELECTION OF ACTUARIAL ASSUMPTIONS

Assumption		Entity Who Selects Assumption	Basis for Assumption Selection	Change in Assumption
Investment Return Interest Rate	7.00%	The Angell Pension Group, Inc.	The investment return interest rate is developed based on the allocation of the Plan's assets by investment class and the capital market outlook for each investment class. This information is provided by the Plan's investment advisor. The assumed rate of return is derived net of spending, taxes, and investment expenses.	None
Salary Scale	3.00%	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the plan and the rate increase set in recent Collective Bargaining Agreement.	None
Taxable Wage Base Increase	N/A	The Angell Pension Group, Inc.	Plan benefits do not depend on future taxable wage base.	None
IRC 415 and 401(a)(17) Limit Projection	N/A	The Angell Pension Group, Inc.	Compensation and benefits are not large enough to be impacted by these limits.	None
Pre-Retirement Mortality	PubS-2010 Employee with Scale MP-2019 Generational Improvements (Male/Female)	The Angell Pension Group, Inc.	The Society of Actuaries published a study of retirement experience in January, 2019. The PubS-2010 tables presented in the study represent the most current and complete benchmarks of U.S. public pension plan mortality experience. The mortality tables used in the valuation include generational mortality improvements via Scale MP-2019.	The mortality tables changed from the RP-2014 Blue Collar Employee with MP-2018 Generational Improvements from 2006 (M/F) as of the prior measurement date, April 1, 2019. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in post-retirement and disability mortality, increased the Entry Age Normal Accrued Liability as of the current measurement date, April 1, 2020, by 3.57%.
Post-Retirement Mortality	PubS-2010 Healthy Retiree with Scale MP-2019 Generational Improvements (Male/Female)	The Angell Pension Group, Inc.	The Society of Actuaries published a study of retirement experience in January, 2019. The PubS-2010 tables presented in the study represent the most current and complete benchmarks of U.S. public pension plan mortality experience. The mortality tables used in the valuation include generational mortality improvements via Scale MP-2019.	The mortality tables changed from the RP-2014 Blue Collar Healthy Annuitant with MP-2018 Generational Improvements from 2006 (M/F) as of the prior measurement date, April 1, 2019. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in pre-retirement and disability mortality, increased the Entry Age Normal Accrued Liability as of the current measurement date, April 1, 2020, by 3.57%.

SECTION V (Cont.)

SELECTION OF ACTUARIAL ASSUMPTIONS

Assumption		Entity Who Selects Assumption	Basis for Assumption Selection	Change in Assumption
Disability Mortality	PubS-2010 Disabled Retiree with Scale MP-2019 Generational Improvements (Male/Female)	The Angell Pension Group, Inc.	The Society of Actuaries published a study of retirement experience in January, 2019. The PubS-2010 tables presented in the study represent the most current and complete benchmarks of U.S. public pension plan mortality experience. The mortality tables used in the valuation include generational mortality improvements via Scale MP-2019.	The mortality tables changed from the RP-2014 Disabled Annuitant with MP-2018 Generational Improvements from 2006 (M/F) as of the prior measurement date, April 1, 2019. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in pre-retirement and post-retirement mortality, increased the Entry Age Normal Accrued Liability as of the current measurement date, April 1, 2020, by 3.57%.
Disability Rates	Occupational disability assumed to equal 3 times the 1974 Railroad Retirement Board Incidence	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the plan.	None
Withdrawal Rates	None	The Angell Pension Group, Inc.	The incidence of Withdrawal under the plan is negligible.	None
Retirement Rates	Participants are assumed to retire after 25 years of service.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None
Administrative Expenses	N/A	The Angell Pension Group, Inc.	Assumed paid by the Town.	None
Percent Married	75% of males and 75% of females are assumed to be married.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None
Age of Spouse	The female spouse is assumed to be 4 years younger than the male spouse.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None

VI. STATEMENT OF PLAN ASSETS, RECONCILIATION AND NET RETURN AS OF APRIL 1, 2020

Statement of Plan Assets

Broadridge Matrix Trust Company Acct. #71751	
Cash	$ (75,151)
Collective Funds	5,772,154
TOTAL VALUATION ASSETS	$ 5,697,003

ASSET RECONCILIATION AND NET RETURN

Beginning of Year	
1. Market value of assets	$ 6,075,161
Income	
2. Employer contributions	932,428
3. Employee contributions	121,937
4. Earnings	(468,867)
5. Total income (2 through 4)	585,498
Expenses	
6. Benefit payments	900,320
7. Fees	63,336
8. Total expenses (6 through 7)	963,656
End of Year	
9. Market value of assets (1+5-8)	$ 5,697,003
Rate of Return	
10. Rate of return on market value of assets	-6.66%

NOTE: The rates of return are computed using the formula 2I / (A + B - I) where A is the asset value at the beginning of the year, B is the asset value at the end of the year, and I is the net investment income for the year.

VII. ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS AS OF APRIL 1, 2020

	Number	Vested	Non-Vested	Total Present Value
Active	10	$ 2,739,483	$ 470,254	$ 3,209,737
Terminated Vested	1	73,530	0	73,530
Disabled	4	2,452,171	0	2,452,171
Retired[1]	21	11,333,313	0	11,333,313
Total	36	$ 16,598,497	$ 470,254	$ 17,068,751
Total Compensation[2]	$ 836,162			

[1] Includes two Alternate Payees under QDROs and four beneficiaries of deceased participants.
[2] Pensionable compensation as of April 1, 2020.

Basis of Determination

The actuarial assumptions used in calculating the Present Value of Accumulated Plan Benefits are described in Section V of this report, with the exception that no assumption for salary increases was used.

VIII. RECONCILIATION OF PLAN PARTICIPANTS

	Active	Terminated Vested	Disabled	Retired	Total
Participants included in the 04-01-2019 valuation	11	1	4	20*	36
Data corrections	0	0	0	0	0
Terminated vested	0	0	0	0	0
Retired	-1	0	0	1	0
Disabled	0	0	0	0	0
Died with beneficiary	0	0	0	0	0
New beneficiary	0	0	0	0	0
Died without beneficiary	0	0	0	0	0
Alternate Payee (QDRO)	0	0	0	0	0
Lump sum	0	0	0	0	0
Terminated non-vested	0	0	0	0	0
Rehired	0	0	0	0	0
New participants	0	0	0	0	0
Participants included in the 04-01-2020 valuation	10	1	4	21*	36

* Includes two Alternate Payees under QDROs and three Beneficiaries of deceased participants.

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IX. EXPECTED BENEFIT PAYMENTS IN FUTURE YEARS

For Plan Year Beginning:	Payments
2020	$ 931,180
2021	941,705
2022	1,022,848
2023	1,035,743
2024	1,048,614
2025	1,062,910
2026	1,232,035
2027	1,245,070
2028	1,257,747
2029	1,270,009
2030	1,283,347
2031	1,410,273
2032	1,420,525
2033	1,552,664
2034	1,559,081

Note: The amounts shown above are the present values at the valuation date, and its anniversaries, of the benefits expected to be paid during the plan year.

Appendix

Additional Actuarial Disclosures

Actuarial Standards of Practice require an actuary to identify risks that may be reasonably expected to impact the Plan's financial stability. The following risks have been identified by the Plan's actuary as potential risks that may have a material impact on the Plan's funding, including future contribution requirements and the ability to pay benefits when due, if experience varies from that expected in the valuation.

The identification of the risks below does not imply that the Plan *will* experience adverse consequences. Rather, the identification of the specific risks is intended to equip the Plan Sponsor with qualitative information regarding the environment in which the Plan is currently operating, and the potential risks inherent in the environment. Although the provision of quantitative analysis with respect to the risks below is outside of the scope of the annual valuation, we are available to provide additional analysis with respect to any or all of the risks identified below, including stochastic modeling, forecasting, and cash flow projections, at your request, to better assist your organization with understanding these risks. Please contact your plan administrator or actuary at The Angell Pension Group, Inc. ("Angell") for more information.

I. <u>Identification and Measurement of Risk:</u>

- <u>Investment Risk</u> – Pension plans are subject to the inherent risks associated with the various investment classes that comprise the asset portfolio. Plans with higher allocation toward equities may be subject to higher risk, both positive and negative. To the extent that the Plan's investments return a rate less than necessary to maintain certain asset levels, there is a risk that the Plan could become underfunded, and additional cash contributions would be required from the Plan sponsor to make benefit payments when they become due.
- <u>Asset/Liability Mismatch Risk</u> – Pension plan investments have a "duration" over which investments are expected to mature. Similarly, pension plan liabilities have a duration based on the length of time over which benefits are expected to be paid. To the extent that the duration of the assets is different from the liabilities, changes in asset values may not be matched by changes in plan liabilities. We recommend you consult with your financial advisor to discuss the Plan's asset duration. Additional information regarding the Plan's liability duration is presented below in the Plan Maturity Measures section.
- <u>Interest Rate Risk</u> – Pension plan liabilities are calculated using various assumptions, including a defined set of interest rates. As the interest rates for valuing pension liabilities decrease, the liability increases. As liabilities increase, the funded status of the Plan may decrease. Government plans are subject to an interest discount rate based on the allocation of the Plan's assets, and the capital market outlook for each investment class in the portfolio. If the actual investment returns are lower than the assumed return, the Plan may experience funding shortfall, and higher required contributions in future years.

- Mortality/Longevity Risk – Pension plans provide benefits payable for the lifetimes of Plan participants. To the extent participants live longer than expected, the Plan may become underfunded as a result of higher benefit payments than expected over the life of the Plan. For funding purposes, the mortality tables are selected by the Plan actuary and used to calculate the Plan liability for cash contribution purposes. We continue to monitor that the tables are appropriate based on the specific demographics of your Plan.
- Retirement/Demographic Risk – Pension plan participants may be assumed to retire at various ages. The assumption is based on prior experience of the Plan, and industry-wide retirement trends. To the extent actual retirements deviate from the expected retirements, the Plan may experience liability gains or losses. Plans with actively accruing benefit formulas may be subject to additional risk of underfunding as participants continue to age and earn benefit accruals, particularly if accruals continue after the Plan's Normal Retirement Age.
- Other Demographic Risk – To the extent that demographic experience varies from that assumed in the funding calculations, the Plan may experience funding shortfalls and higher contributions in future years. We monitor the demographic experience under the Plan each year, and recommend changes to the demographic assumptions as necessary. We are available to provide specific demographic analysis upon request.
- Contribution Risk – The continued funding of the Plan depends on the Plan Sponsor maintaining certain levels of funding that are sufficient to pay benefits as they become due. To the extent the Plan Sponsor does not make sufficient contributions, the Plan may be subject to underfunding. The continued funding of government pension plans depends on the ongoing required employee contributions. The enclosed funding results are based on the assumption that employee contributions will continue as required, in the amount required. To the extent employee contributions are not made as required, or not made in the amount required, the Plan Sponsor may be responsible for any resulting shortfall.

II. Plan Maturity Measures

As identified above, pension plans have inherent longevity risks. Plan maturity measures provide qualitative guidance on the longevity risks of a specific plan. We are including the following maturity measures and are available to consult with you regarding the impact that various decisions may have on your Plan's maturity and the ability of your Plan to meet future benefit obligations.

The duration of the actuarial present value of accumulated plan benefits as of the measurement date is 13 years.

The duration of the Plan's liabilities provides a measure of the sensitivity of the liability to changes in the interest rate. A higher duration value implies a higher sensitivity to interest rate changes. As outlined in the risk identification disclosures, your Plan is exposed to Interest Rate Risk, and with the duration measure of 13 years, the liability can be reasonably expected to change by approximately 1.3% for every 10 basis point shift in the effective interest rate.

The Plan's liability duration also provides numerical information with respect to the longevity of the Plan, by outlining the period over which the Plan may reasonably expect to make distributions. If participants live longer than expected, the Plan's exposure to longevity/mortality risk may increase, as a result of making payments longer than expected.

Finally, the duration is also relevant for measuring the balance of the Plan liabilities compared to the Plan assets. As outlined in the risk identification disclosures, your Plan may be exposed to asset/liability mismatch if the duration measures are not aligned. You may wish to discuss the Plan's asset duration with your investment advisor, to better assess this identified risk. We are available to provide you with additional information for mitigating the risks presented, as they relate to your Plan's duration. Please contact your consultant at Angell for more information.

III. Historical Plan Values

The following historical values are included to provide additional background regarding the Plan.

- Actual Asset Rate of Return/Discount Rate - The Plan's historical asset rate of return is shown below for the current and prior measurement dates, based on asset information provided by the Plan Sponsor.

  The discount rate corresponds to the liability value as of the measurement date. The discount rate can be used as a benchmark for the growth in the Plan's liability from the beginning of the Plan year to the end of the Plan year. To the extent the actual rate of return on Plan assets does not keep pace with the discount rate, the Plan may experience a funding shortfall, which may increase the required minimum contributions in future years.

Valuation Year	2019	2018	2017	2016	2015
Actual Rate of Return on Assets	-6.66%	4.80%	10.62%	10.92%	-3.47%
Assumed Rate of Return	7.00%	7.50%	7.50%	7.50%	7.50%

- Actual contributions compared to actuarially recommended contributions - The Plan's actual contributions compared to actuarially recommended contributions are shown below for the current and prior measurement dates, based on asset information provided by the Plan Sponsor.

Valuation Date	4/1/2020	4/1/2019	4/1/2018	4/1/2017	4/1/2016	4/1/2015
Actual Contributions	TBD	$1,054,365	$960,638	$972,233	$868,777	$936,547
Actuarially Recommended Contributions*	$1,211,313	$1,054,062	$938,821	$888,870	$859,866	$750,489
Ratio of Actual to Recommended	TBD	100.03%	102.32%	109.38%	101.04%	124.79%

* Calculated as of October 1, following the Valuation Date