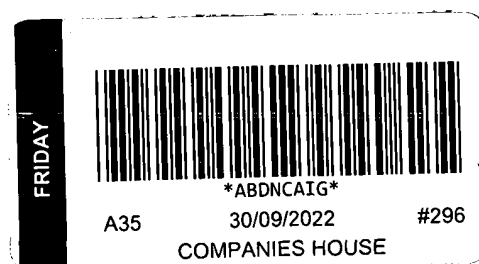


**General Dynamics Swiss Financial
Management Limited**
Annual report and financial statements
Registered number 10786363
31 December 2021



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Strategic report

The directors present their annual report and the audited financial statements for the year ended 31 December 2021.

Principal activities

The principal activity of the company is to act as a governance instrument on behalf of General Dynamics Corporation.

Section 172(1) Statement

The Directors have considered the new reporting requirements as required by The Companies (Miscellaneous Reporting) Regulations 2018 which apply to companies meeting certain criteria for financial years starting on or after 1 January 2019 and considers that the company is within the scope of the criteria by virtue of it being the parent company of a large trading group.

The regulations require that the Directors report on specific matters, however, the Directors note that GDSFM principally operates as a holding company and provides cash pooling and other financial services to regulate the collective cash needs of the cash pool members all of which are connected companies. It does not trade in its own right and therefore does not hold trading contracts with third parties and there are no employees. Consequently, the Directors are of the view that there are no relevant matters to be reported in connection with the engagement with customers, suppliers and employees. GDSFM does enter into transactions with third party banks to facilitate and support the cash management needs of the group and works closely with the banks to build collaborative relationships through regular meetings and maintaining strong communication channels.

The Directors carry out their duties in a way that they consider to be in good faith, would most likely promote the success of the company for the benefit of its members as a whole and with due regard to other stakeholder interests and in accordance with Corporate Governance.

Principal Risk & Uncertainties

The principal purpose of General Dynamics Swiss Financial Management Limited (GDSFM or "the Company") is to ensure appropriate governance in the CHF denominated General Dynamics Entities. To that aim, GDSFM acts as a holding company, and provides cash pooling and other financial services and support to General Dynamics' group companies. As such, GDSFM may enter into inter-company agreements that affect the European cash pool and other treasury-related activities such as letters of credit for programs, etc. These intra-group agreements and activities are cross-border in many circumstances and, as such, may involve risk and uncertainty in one or more areas. GDSFM may also engage in borrowing on behalf of the companies that it supports, and these activities may have risk or uncertainty in one or more areas.

Future Developments & Strategies

GDSFM is a governance company that supports member companies of General Dynamics Corporation. It is likely that it will continue to do so and may add other finance-related activities, such as borrowings and other finance activities.

Business review, results and dividends

Loss after taxation for the year ended 31 December 2021 was CHF 112m compared to a profit of CHF 112k for the year ended 31 December 2020. This movement was caused by the recognition of an impairment of CHF 112m in 2021. Debtors and creditors have increased by 38m CHF and 54m CHF respectively due to movements in the balances owed from and to cash pool members as part of the cash pooling activity to regulate the collective cash needs of the members.

In December 2021, GDSFM paid an interim dividend of CHF 25,638,254 to General Dynamics Global Holdings Ltd its wholly owned parent.

The directors do not recommend payment of a final dividend in the year (2020: Nil).

Impairment

During the year an impairment review took place which resulted in an impairment of CHF 112m in Jet Aviation Holdings GmbH (2020: Nil).

Strategic Report (continued)

Brexit

The implications of Brexit for the Company continue to be monitored following the UK's departure from the EU on 31 December 2020.

As GDSFM is primarily a governance entity whose active operations are limited to the holding of shares and provision of cash pooling and financial services to the cash pool members. The indirect tax consequences are limited. Direct tax risk has also been assessed as low given the extensive network of tax treaties the United Kingdom has with withholding tax on interest and royalty payments reduced to 0% in all the countries where investments are held.

Brexit is however likely to have direct consequences to some of the Company's subsidiaries, which have taken active counter-measures to prevent disruptions in case of a No-deal Brexit.

Business Risk

GDSFM operates as a Cash Pool Leader with the principal aim of regulating the collective cash needs of the Cash Pool Members to maximise the aggregate surplus in cash and interest income and minimise the aggregate deficit in cash and interest expenditure within the cash pool. The Cash Pool Members are subsidiary entities of the General Dynamics' Group as defined in the Multilateral European Cash pool Agreement which binds the members and details the responsibilities and obligations of both the Cash Pool Leader and Cash Pool Members. As Cash Pool Leader, GDSFM has a legal obligation to transfer funds between the Cash Pool Members based on periodic forecasting of the cash needs of the Cash Pool Members.

Business risks arise from:

Changes to cash forecasts

Detailed forecasts are prepared by Cash Pool Members on a monthly basis and used to support the preparation of the ongoing year cash forecasts which is updated before each year-end to include the following year. Uncertainty surrounding the timing of receipts which are often dependent on the achievement of milestone deliverables could impact the longer term forecasts. Changes to longer term forecasts may also arise as a result of impacts to the Cash Pool Members caused by environmental factors such as COVID-19. The regular communication of changes to forecasts ensures the appropriate management of cash is not compromised and the cash pooling arrangement helps to ensure optimisation of financial resources and any need for borrowed capital is reduced.

Return on cash pool activities

Cash swept from the Cash Pool Member to the Cash Pool Leader is deemed to be a loan from the Cash Pool Member. Where the transfer is from the Cash Pool Leader to the Cash Pool Member this is deemed to be a loan from the Cash Pool Leader. Interest rates on loans made between the Cash Pool Member and Cash Pool Leader are calculated at arm's length to cover the interest due and payable by the Cash Pool Leader to the Cash Pool Members. This leaves GDSFM with an arm's length return arising from net finance income which also includes foreign exchange gains thus ensuring profitability from the principal cash pool activities.

Exchange rate risk

The Cash Pool Members have accounts denominated in currencies applicable to them. These accounts are swept daily into master accounts held by GDSFM in the same currency. The company is naturally hedged, since the funds received or lent in currencies other than Swiss Francs within the cash pool are invested in the same currency.

GDSFM is a subsidiary of General Dynamics Worldwide Holdings Inc which acts as guarantor to both the Cash Pool Members and GDSFM as Cash Pool Leader. Under the terms and conditions of the guarantee agreement, the guarantor absolutely and irrevocably guarantees the payment obligations of each Cash Pool Member and Cash Pool Leader arising from the cash pool thus minimising risk.

The corporate credit rating for General Dynamics Corporation (the 100% owned parent company of General Dynamics Worldwide Holdings Inc) is A2 reflecting its financial strength and ability to pay creditors.

Strategic Report (continued)

Business Risk (continued)

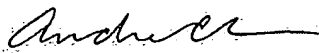
Changes to the value of investments

GDSFM holds a number of investments in General Dynamics Swiss Franc entities. To align GDSFM with the currency of these entities, the functional currency is Swiss Francs in order to minimise exchange rate risk. Potential risks arise in respect of reduction to the investment value of these investments. Impairment reviews are undertaken annually using either the value of net assets at year end or, where net assets are insufficient, a review of performance based on discounted future cash flows. Where the valuation is below the recorded investment value, an impairment is recognised. A combination of net assets and discounted future cash flows are used where the net assets were not fundamental in generating the cash flows themselves. Impairment risk is further considered through the use of sensitivity analysis to test the impact of changing estimates and judgements on the valuation and their expected future profitability.

During the 2021 review, environmental impacts such as COVID-19 were discussed. The largest investment is held in General Dynamics European Land Systems Mowag GmbH (Mowag). Mowag has long term projects which extend beyond 2021 and significant headroom in its valuation based on a review of discounted future cash flows. No significant adverse impact from COVID-19 has arisen. The other material investment is a 69% holding of shares in Jet Aviation Holdings GmbH (JAH). JAH experienced a decline in revenue and profits in 2021 due to the ongoing impacts of COVID-19 with the reduction in flights leading to a reduction in maintenance, handling, re-fuelling and aircraft management activity. With lock downs generally being lifted JAH has seen signs of recovery but lock downs in China continue to slow the recovery. JAH has responded through closure of the Hong Kong facility and diversifying into new business activities. In particular, JAH has secured more defense / fleet services work for the maintenance of military aircraft. Work on completion projects is relatively stable and has seen strong margins with good opportunities to secure further contracts ranging in length from 12 – 36 months. JAH is also cash positive with cash reserves in excess of working capital requirements. However, following a review of the business, an impairment was considered necessary based on future discounted cash flows. Although the war between Russia and Ukraine has further impacted supply chain and flights this is a post balance sheet event. Forecasts, risks and opportunities are being closely monitored.

In any event, as a non-cash book entry, the recognition of impairments does not effect the operations of the Company other than to reduce distributable reserves nor do they affect the assessment of going concern since the assets are held as long term investments upon which the Company is not reliant on their income. Furthermore, as at 31 December 2021, GDSFM had distributable reserves of nearly CHF 900m.

By order of the board



A Chen
Director

21 Holborn Viaduct
London
EC1A 2DY

Date 27 Sept 2022

Directors' report

Directors and directors' interests

The directors who held office during the period were as follows:

JW Aiken
A Chen

Directors' indemnities

The Company has maintained liability insurance for Directors and officers and its subsidiaries. Neither the insurance nor the indemnity provides cover where a Director acts fraudulently or dishonestly. The Company has made qualifying third-party indemnity provisions for the benefit of the Directors and remain in force at the date of this report.

Financial risk management

The Company is not obliged to provide funding to cash pool members in excess of amounts deposited unless there is excess bank borrowing capacity. The cash pool liabilities are guaranteed by General Dynamics Worldwide Holdings with a further 700m Euro credit facility with 3rd party banks guaranteed by General Dynamics Corporation. The majority of transactions are with established 3rd party banks and related parties minimising exposure to credit risk with investments held in CHF denominated entities to match the functional currency of GDSFM and minimise foreign currency risk. The Company is naturally hedged since the funds received or borrowed in currencies other than Euro are invested in the same currency.

Political and charitable contributions

The Company made no political or charitable contributions during the year.

Supplier payment policy

The Company's policy is to agree payment terms with suppliers. Liabilities are settled in accordance with these agreed terms.

Provision of information to the auditor

The directors who held office at the date of approval of this directors' report confirm that, so far as they are each aware, there is no relevant audit information of which the Company's auditor is unaware; and each director has taken all the steps that he ought to have taken as a director to make himself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

Dividends

The directors do not recommend payment of a final dividend for the year ended 31 December 2021 (2020: nil).

Auditor

Pursuant to Section 487 of the Companies Act 2006, the auditor will be deemed to be reappointed and KPMG LLP will therefore continue in office.

By order of the board



A Chen
Director

21 Holborn Viaduct
London
EC1A 2DY

Date 27 Sept 2022

**STATEMENT OF DIRECTORS' RESPONSIBILITIES IN RESPECT OF THE STRATEGIC REPORT,
THE DIRECTORS' REPORT AND THE FINANCIAL STATEMENTS**

The directors are responsible for preparing the Strategic Report, the Directors' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law they have elected to prepare the financial statements in accordance with UK accounting standards and applicable law (UK Generally Accepted Accounting Practice), including FRS 101 *Reduced Disclosure Framework*.

Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the company and to prevent and detect fraud and other irregularities.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENERAL DYNAMICS SWISS FINANCIAL MANAGEMENT LIMITED

Opinion

We have audited the financial statements of General Dynamics Swiss Financial Management Limited ("the Company") for the year ended 31 December 2021 which comprise the Profit and Loss Account and Other Comprehensive Income, Balance Sheet, Statement of Changes in Equity and related notes, including the accounting policies in note 1.

In our opinion the financial statements:

- give a true and fair view of the state of the company's affairs as at 31 December 2021 and of its loss for the year then ended;
- have been properly prepared in accordance with UK accounting standards, including FRS 101 *Reduced Disclosure Framework*; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We have fulfilled our ethical responsibilities under, and are independent of the company in accordance with, UK ethical requirements including the FRC Ethical Standard. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion.

Going concern

The directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the company or to cease its operations, and as they have concluded that the company's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over its ability to continue as a going concern for at least a year from the date of approval of the financial statements ("the going concern period").

In our evaluation of the directors' conclusions, we considered the inherent risks to the company's business model and analysed how those risks might affect the company's financial resources or ability to continue operations over the going concern period.

Our conclusions based on this work:

- we consider that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate;
- we have not identified, and concur with the directors' assessment that there is not, a material uncertainty related to events or conditions that, individually or collectively, may cast significant doubt on the company's ability to continue as a going concern for the going concern period.

However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the above conclusions are not a guarantee that the company will continue in operation.

Fraud and breaches of laws and regulations – ability to detect

Identifying and responding to risks of material misstatement due to fraud

To identify risks of material misstatement due to fraud ("fraud risks") we assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. Our risk assessment procedures included:

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENERAL DYNAMICS SWISS FINANCIAL MANAGEMENT LIMITED (CONTINUED)

Identifying and responding to risks of material misstatement due to fraud (continued)

- Enquiring of directors as to the Company's high-level policies and procedures to prevent and detect fraud, as well as whether they have knowledge of any actual, suspected or alleged fraud.
- Reading Board minutes.
- Using analytical procedures to identify any unusual or unexpected relationships.

We communicated identified fraud risks throughout the audit team and remained alert to any indications of fraud throughout the audit.

As required by auditing standards, we perform procedures to address the risk of management override of controls, in particular the risk that management may be in a position to make inappropriate accounting entries. On this audit we do not believe there is a fraud risk related to turnover recognition because the Company has no turnover.

We did not identify any additional fraud risks.

In determining the audit procedures we took into account the results of our evaluation and testing of the operating effectiveness of Company-wide fraud risk management controls.

We performed procedures including:

- Identifying journal entries and other adjustments to test based on risk criteria and comparing the identified entries to supporting documentation. These included those posted to unusual accounts.

Identifying and responding to risks of material misstatement due to non-compliance with laws and regulations

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience and through discussion with the directors (as required by auditing standards), and discussed with the directors the policies and procedures regarding compliance with laws and regulations.

The company is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies legislation), distributable profits legislation and taxation legislation and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

This company, as a holding company, is not subject to other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements.

Context of the ability of the audit to detect fraud or breaches of law or regulation

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it.

In addition, as with any audit, there remained a higher risk of non-detection of fraud, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. Our audit procedures are designed to detect material misstatement. We are not responsible for preventing non-compliance or fraud and cannot be expected to detect non-compliance with all laws and regulations.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENERAL DYNAMICS SWISS FINANCIAL MANAGEMENT LIMITED (CONTINUED)

Strategic report and directors' report

The directors are responsible for the strategic report and the directors' report. Our opinion on the financial statements does not cover those reports and we do not express an audit opinion thereon.

Our responsibility is to read the strategic report and the directors' report and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work:

- we have not identified material misstatements in the strategic report and the directors' report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Matters on which we are required to report by exception

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

Directors' responsibilities

As explained more fully in their statement set out on page 5, the directors are responsible for: the preparation of the financial statements and for being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENERAL DYNAMICS SWISS FINANCIAL
MANAGEMENT LIMITED (CONTINUED)**

The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members, as a body, for our audit work, for this report, or for the opinions we have formed.



Alexander Chong (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
66 Queen Square
Bristol
BS1 4BE

28 September 2022

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**Profit and Loss Account and Other Comprehensive Income
for the year ended 31 December 2021**

	Notes	2021 CHF	2020 CHF
Administration expenses		(697,858)	(549,790)
Impairment		(112,000,000)	-
Operating Loss		(112,697,858)	(549,790)
Net financing income	2	981,913	691,049
(Loss) / Profit on ordinary activities before taxation	3	(111,715,945)	141,259
Tax charge	4	(53,704)	(29,143)
(Loss) / Profit for the year		(111,769,649)	112,116

All results arose from continuing operations.

The company incurred no other comprehensive income in the year.

The notes on pages 13 to 22 form part of these financial statements.

Balance sheet
at 31 December 2021

	Note	CHF	2021	CHF	CHF	2020	CHF
Fixed assets							
Investments	5			1,283,952,500			1,395,952,500
Current assets							
Debtors	7		91,136,961			52,979,008	
Cash at bank			1,952,077			10,920,792	
				93,089,038		63,899,800	
Current liabilities							
Creditors: amounts falling due within one year	8		(427,927,045)			(373,329,900)	
Net current liabilities							
				(334,838,003)		(309,430,100)	
Total Assets less current Liabilities							
				949,114,497		1,086,522,400	
Capital and reserves							
Called up share capital	9			4		4	
Share Premium				58,090,201		58,090,201	
Capital Contribution				182,000		182,000	
Profit and loss account				890,842,292		1,028,250,195	
Equity shareholders' Funds							
				949,114,497		1,086,522,400	

The notes on pages 13 to 22 form part of these financial statements.

These financial statements were approved by the board of directors on 27 Sept 2022 and were signed on its behalf by:



A Chen
Director

Statement of Changes in Equity

	Note	Share capital account CHF	Capital contribution CHF	Share premium CHF	Profit and loss account CHF	Total CHF
At 1 January 2021		4	182,000	58,090,201	1,028,250,195	1,086,522,400
Loss for the year		-	-	-	(111,769,649)	(111,769,649)
Dividends Paid		-	-	-	(25,638,254)	(25,638,254)
At 31 December 2021		4	182,000	58,090,201	890,842,292	949,114,497

	Share capital account CHF	Capital contribution CHF	Share premium CHF	Profit and loss account CHF	Total CHF
At 1 January 2020	4	182,000	58,090,201	1,028,138,079	1,086,410,284
Profit for the year	-	-	-	112,116	112,116
At 31 December 2020	4	182,000	58,090,201	1,028,250,195	1,086,522,400

Notes to the financial statements
(forming part of the financial statements)

General information

The Company is incorporated, registered and domiciled in England and Wales. The address of the registered office is given on page 3. The nature of the Company's operations and principal activities are set out in the Strategic Report.

1 Accounting policies

The following accounting policies have been applied consistently in dealing with items which are considered to be material in relation to the financial statements.

Basis of preparation

These financial statements were prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework ("FRS 101").

In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of International accounting standards in conformity with the requirements of the Companies Act 2006 ("Adopted IFRSs"), but makes amendments where necessary in order to comply with Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken.

As the Company's ultimate parent undertaking, General Dynamics Corporation, includes the Company in its consolidated financial statements, the Company qualifies for the preparation of accounts using FRS 101 with reduced disclosures. The consolidated financial statements of General Dynamics Corporation are prepared in accordance with U.S. Generally Accepted Accounting Practice and are available to the public and may be obtained from 11011 Sunset Hills Road, Reston, VA 20190.

In these financial statements, the company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- Cash Flow Statement and related notes;
- Disclosures in respect of capital management; and
- Disclosures in respect of the compensation of Key Management Personnel.
- Disclosures in respect of transactions with wholly owned subsidiaries of General Dynamics Corporation.

As the consolidated financial statements of General Dynamics Corporation include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

- Certain disclosures required by IFRS 13 Fair Value Measurement and the disclosures required by IFRS 7 Financial Instrument Disclosures.

The Company proposes to continue to adopt the reduced disclosure framework of FRS 101 in its next financial statements.

Notes (continued)

1 Accounting policies (continued)

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these financial statements.

GDSFM has entered into a cash pooling arrangement (CPA) with certain General Dynamics cash pool member affiliates in Europe (CPMs) in order to facilitate the cash management services provided by GDSFM to these Entities. Embedded in the CPA is a parental guarantee issued by General Dynamics Worldwide Holdings Inc. to GDSFM under which General Dynamics Worldwide Holdings Inc. is liable and unconditionally, absolutely and irrevocably guarantees the payment of all obligations arising under the cash pool arrangements. In addition, General Dynamics Corporation has issued several parent guarantees whereby it unconditionally, absolutely and irrevocably guarantees the payment of all obligations of GDSFM to different banks arising under the credit facility agreements up to a maximum amount of EUR 700 million (EUR 300 million credit facility with Lloyds Bank PLC, EUR 200M with JP Morgan Chase Bank NA and EUR 200M with Wells Fargo). These guarantees provide for lower credit and interest risks for GDSFM while foreign exchange risk is mitigated by hedging.

GDSFM is exempt by virtue of s401 of the Companies Act 2006 from the requirement to prepare group accounts. These financial statements present information about the company as an individual undertaking and not about its group.

Functional currency

GDSFM holds investments in General Dynamics Swiss entities and was established in order to align entities with their functional currency for cash pooling and investment purposes. As such the functional currency of GDSFM is the Swiss franc.

Going Concern

The financial statements have been prepared on a going concern basis which the Directors consider to be appropriate for the following reasons.

The Directors have considered cash flow forecasts for a period exceeding 12 months from the date of signing of the accounts which indicate that, taking account of severe but plausible downsides and the anticipated impact of COVID-19 on its operations and its financial resources, the Company will have sufficient funds to meet its liabilities as they fall due for that period.

In making this assessment the Directors have considered the fact that the Company's activities are principally as a holding company for Swiss entities in the global group headed by General Dynamics Corporation and to provide cash pooling to those same entities. The Company therefore holds long-term investment balances which have been funded through a combination of equity and bank borrowings as well as cash pooling receivables and payables. The cash pooling agreement allows for any of the cash pool members to request additional funds from the cash pool in excess of amounts deposited but the Company is not obliged to provide such funding unless it has excess bank borrowing capacity available to satisfy such a request. As a result, the Company is able to control the extent of its cash pooling exposure. The company has low levels of operating expenses which are required to be settled in cash (i.e. excluding those which are non-cash such as unrealised foreign currency retranslation) and these are not impacted by environmental events such as COVID-19 meaning that they can be forecast reliably. The company's borrowings are in the form of cash pool liabilities, i.e. amounts owing to cash pool members, third party bank borrowings and intercompany funding from General Dynamics Global Holdings Limited ("GDGH"), the Company's immediate parent undertaking.

The Company's banking facilities total EUR 700m and while these are repayable within one year, the entire facility is guaranteed by General Dynamics Corporation in the event the Company is unable to repay any amounts owing.

In relation to the cash pooling liabilities these are wholly and irrevocably guaranteed by the Company intermediate holdings company General Dynamics Worldwide Holdings Inc. Additionally, the Company is able to use its guaranteed banking facilities described above to settle outstanding cash pool liabilities.

The Company is also reliant on GDGH not seeking repayment of the amounts currently due to the group, which at 31 December 2021 amounted to 382m CHF. GDGH has indicated that it does not intend to seek repayment of these amounts for the period covered by the forecasts.

Notes (continued)

1 Accounting policies (continued)

Going Concern (continued)

Having made enquiries of the directors of GDGH and assessed the financial position of GDGH the directors are satisfied GDGH has the ability, intent and economic rationale to continue to support the Company. As with any company placing reliance on other group entities for financial support, the directors acknowledge that there can be no certainty that this support will continue although, at the date of approval of these financial statements, they have no reason to believe that it will not do so.

Consequently, the Directors are confident that the Company will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore have prepared the financial statements on a going concern basis.

New and amended standards

The accounting policies adopted are consistent with those of the previous financial year.

Taxation

Tax on the profit or loss for the year comprises current tax and is recognised in the income statement.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years.

Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: the initial recognition of assets or liabilities that affect neither accounting nor taxable profit other than in a business combination, and differences relating to investments in subsidiaries to the extent that they will probably not reverse in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the balance sheet date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilised.

Foreign Currencies

Transactions in foreign currencies are translated to the Company's functional currency at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated to the functional currency at the foreign exchange rate ruling at that date. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are retranslated to the functional currency at foreign exchange rates ruling at the dates the fair value was determined. Foreign exchange differences arising on translation are recognised in the profit and loss account.

Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits.

Fixed asset investments

Investments in subsidiaries are carried at cost less provision for impairment (if any). Investments are reviewed annually for indicators of impairment and losses recognised when the book value is greater than the recoverable amount (higher of fair value less costs of disposal and value in use). Value in use is calculated by discounting future cash flows expected from the continued use of the asset.

Notes (continued)

1 Accounting policies (continued)

Impairment of non financial assets

Intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. Where it is not possible to estimate the recoverable value of an individual asset, the impairment test is carried out on the smallest group of assets to which it belongs for which there are separately identifiable cash flows; its cash generating units (CGU's). Impairment charges are included in the profit and loss except to the extent they reverse gains previously recognised in other comprehensive income. An impairment loss recognised (other than goodwill) is reversed in a subsequent period if the reasons for the impairment loss have ceased to apply.

Classification of financial instruments issued by the Company

Following the adoption of IFRS9, financial instruments issued by GDSFM are treated as equity only to the extent that they meet the following two conditions:

- (a) they include no contractual obligations upon the company to deliver cash or other financial assets or to exchange financial assets or financial liabilities with another party under conditions that are potentially unfavourable to the company; and
- (b) where the instrument will or may be settled in the company's own equity instruments, it is either a non-derivative that includes no obligation to deliver a variable number of the company's own equity instruments or is a derivative that will be settled by the company's exchanging a fixed amount of cash or other financial assets for a fixed number of its own equity instruments.

To the extent that this definition is not met, the proceeds of issue are classified as a financial liability. Where the instrument so classified takes the legal form of GDSFM's own shares, the amounts presented in these financial statements for called up share capital and share premium account exclude amounts in relation to those shares.

Non-derivative financial instruments

Non-derivative financial instruments comprise investments in equity and debt securities, trade and other debtors, cash and cash equivalents, loans and borrowings, and trade and other creditors.

Trade and other debtors and creditors

Trade and other debtors are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method, less any impairment losses.

Trade and other creditors are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method.

Investments in debt and equity securities

Ordinary shares are stated at cost less impairment. Financial instruments held for trading, or designated upon initial recognition or at the IFRS9 transition date if later are stated at fair value, with any resultant gain or loss recognised in profit or loss.

Other investments in debt and equity securities held by GDSFM are classified as being available-for-sale and are stated at fair value, with any resultant gain or loss being recognised directly in equity (in the fair value reserve), except for impairment losses and, in the case of monetary items such as debt securities, foreign exchange gains and losses. When these investments are derecognised, the cumulative gain or loss previously recognised directly in equity is recognised in the Statement of Income. Where these investments are interest-bearing, interest calculated using the effective interest method is recognised in Statement of Income.

Interest-bearing borrowings

Interest-bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost using the effective interest method, less any impairment losses.

Notes (continued)

Remuneration of directors

The directors are all employees of other group companies and their staff costs are incurred by those other group companies and not recharged to the Company. The portion of their remuneration which relates to their roles as directors of this company is inconsequential to their overall remuneration and is estimated to be CHF1,000. There are no persons employed by GDSFM during the year.

2 Finance expense

	2021 CHF	2021 CHF	2020 CHF	2020 CHF
Interest payable and similar charges				
Intercompany interest expense	(125,181)		(2,116,609)	
Bank Interest	(27,502)		(26,511)	
	<u></u>		<u></u>	
Interest Income				
Intercompany interest income	1,588,462		3,132,995	
Bank interest income	627		192	
	<u></u>		<u></u>	
Loss on foreign exchange		(454,493)		(299,018)
		<u></u>		<u></u>
Net finance income		<u>981,913</u>		<u>691,049</u>

3 (Loss) / Profit before taxation

The (loss) / profit before taxation is stated after charging:

	2021 CHF	2020 CHF
Auditor's remuneration		
Audit of these financial statements	22,700	22,000
Taxation compliance services	7,343	9,493

4 Taxation

Analysis of credit in period

	2021 CHF	2020 CHF
UK corporation tax		
Current tax for the year	53,970	26,839
Prior period adjustment	(14,116)	2,304
Withholding tax	13,850	-
	<u></u>	<u></u>
Total tax	<u>53,704</u>	<u>29,143</u>

Notes (continued)

4 Taxation (continued)

	2021 CHF	2020 CHF
Reconciliation of effective tax rate		
(Loss) / Profit for year	(111,769,649)	112,116
Total tax expense	53,704	29,143
Loss excluding taxation	(111,715,945)	141,259
Tax using the UK corporate tax rate of 19% (2020: 19%)	(21,226,030)	26,839
Expenses not deductible	21,280,000	-
Prior period adjustment	(14,116)	2,304
Withholding tax	13,850	-
Total tax expense	53,704	29,143

An increase in the UK corporation tax rate from 19% to 25% (effective 1 April 2023) was substantively enacted on 24 May 2021.

5 Investments

Investment entity and address	Country of Incorporation	Proportion held	Class of share	Cost CHF
General Dynamics European Land Systems Mowag GmbH, Unterseestrasse 65, 8280 Kreuzlingen, Switzerland	Switzerland	100	Ordinary	862,272,000
Jet Aviation Holdings GmbH, Aeschengraben 6, 4051 Basel, Switzerland	Switzerland	69	Ordinary	421,680,500
				<u>1,283,952,500</u>
				2021 CHF
As at 1 January 2021				1,395,952,500
Impairment				(112,000,000)
As at 31 December 2021				<u>1,283,952,500</u>
				2020 CHF
As at 1 January 2020				1,395,952,500
As at 31 December 2020				<u>1,395,952,500</u>

Notes (continued)

6 Related party undertakings

The voting rights of the shares are the same as the percentage held unless indicated otherwise.

Company name and address	Accounting Period	Country of Incorporation	GDSFM Ownership %	Class of share
Jet Aviation Vienna GmbH, Hangar 7, 1300 Wien-Flughafen, Austria	31/12/2021	Austria	28	Ordinary/Common
Jet Aviation (Bermuda) Ltd, Suite 306, The Commerce Building, One Chancery Lane, Hamilton 12, Bermuda	31/12/2021	Bermuda	69	Ordinary/Common
Beijing BAC Co. Ltd., Nan Fa Xin Zhang Xin Hua Ji Di #01-1, Beijing, CH	31/12/2021	China	30	Ordinary/Common
Jet Aviation (Hong Kong) Ltd, Room 1112-3, AFFC, 2 Chun Wan Road, Chek Lap Kok, Hong Kong	31/12/2021	China (Hong Kong)	69	Ordinary/Common
Jet Aviation Business Jets (Hong Kong) Ltd., 801, Citygate Outlets, 20 Tat Tung Rd, Lantau Island, Hong Kong	31/12/2021	China (Hong Kong)	69	Ordinary/Common
General Dynamics European Land Systems Mowag GmbH, Unterseestrasse 65, 8280 Kreuzlingen, Switzerland	31/12/2021	Switzerland	100	Ordinary/Common
GD ELS Romania S.R.L., 96B Nordului Avenue, 1st Floor, Apt. 2, Office No. 1, District 1, Bucharest	31/12/2021	Romania	99.9	Ordinary/Common
Jet Aviation France SAS, 23 Rue Du Roule, 75001 Paris, France	31/12/2021	France	69	Ordinary/Common
Jet Aviation Business Jets Deutschland GmbH, Hangar 3, Cologne- Bonn Airport, Cologne 51147 Germany	31/12/2021	Germany	34	Ordinary/Common
Jet Aviation Services GmbH, Flughafenstraße 60, 40474 Düsseldorf, Germany	31/12/2021	Germany	69	Ordinary/Common
Jet Aviation Lebanon S.a.l, Assaf Center, Adnan El Hakim Street, JNAH, Beirut, Lebanon	31/12/2021	Lebanon	35	Ordinary/Common
Jet Aviation ME S.a.l, Ras Beirut, Adnan Hakim Street-Assa, Beirut, Lebanon	31/12/2021	Lebanon	35	Ordinary/Common
Jet Aviation (Malaysia) SDN, Level 22, Quill 7, No 0 Jalan Sentral 5, Kuala Lumpur, 50470 Malaysia	31/12/2021	Malaysia	69	Ordinary/Common
Jet Aviation Flight Services (Malta) Limited, Vision Exchange Building, Level 2, Territorials Street, Mriehel BKR 3000, Malta	31/12/2021	Malta	34	Ordinary/Common
Jet Aviation Netherlands BV, Amsterdam Airport, Evert van de Beekstraat 202, 1118 CP Schiphol, Netherlands	31/12/2021	Netherlands	100	Ordinary/Common
Jet Aviation Saudi Arabia Co. Ltd Private Aviation Terminal, King Abdulaziz International Airport, Jeddah 21499	31/12/2021	Saudi Arabia	8	Ordinary/Common
Jet Aviation (Asia Pacific) Private Ltd., Seletar Airport, 1075 West Camp Road, Singapore 797800	31/12/2021	Singapore	69	Ordinary/Common
SATS Seletar Aviation Services Limited, Seletar Airport 21 Seletar Aerospace Road 1, Singapore 797405	31/12/2021	Singapore	17	Ordinary/Common
Jet Aviation Malaga SA, Aeropuerto de Malaga, Malaga, Spain	31/12/2021	Spain	69	Ordinary/Common
Jet Aviation AG Basel, Aeschengraben 6, 4051 Basel, Switzerland	31/12/2021	Switzerland	69	Ordinary/Common
Jet Aviation Business Jets AG, Aeschengraben 6, 4051 Basel, Switzerland	31/12/2021	Switzerland	69	Ordinary/Common
Jet Aviation Holding GmbH, Aeschengraben 6, 4051 Basel, Switzerland	31/12/2021	Switzerland	69	Ordinary/Common
Jet Aviation Management AG Obstgartenstrasse 27, CH-8302 Kloten, Switzerland	31/12/2021	Switzerland	69	Ordinary/Common
Flugplatz Dübendorf AG, Überlandstrasse 103, CH-8600 Dübendorf	31/12/2021	Switzerland	8	Ordinary/Common
Jet Aviation Business Jets FZ Co, Dubai Airport Free Zone, Suite No. 3E-109, Dubai, UAE	31/12/2021	UAE – Dubai	69	Ordinary/Common
Jet Aviation Dubai LLC, Behind Dubai Airport Free Zone Authority, Al Quds Street, Dubai, UAE	31/12/2021	UAE – Dubai	34	Ordinary/Common

Notes (continued)

6 Related party undertakings (continued)

Related party undertakings include both direct (as shown within investments) and indirect subsidiary companies owned by GDSFM.

During the year GDSFM received 3m CHF (USD 3.3m) from Jet Aviation Asia Pacific in part settlement of a loan and charged interest of 24k CHF (26.4k USD). Other than transactions associated with cash pooling activities and the transactions detailed within debtors and creditors, there were no other related party transactions in the year. Total net interest received / receivable from cash pool members in the year was 1.1m, 284k, 54k, and 18k CHF from General Dynamics European Land Systems – Mowag GmbH, Jet Aviation Holdings GmbH, Jet Aviation Netherlands B.V. and Jet Aviation France S.A.S respectively.

7 Debtors: amounts falling due within one year

	2021 CHF	2020 CHF
Intercompany cash pool	74,915,974	32,155,241
Taxation	21,750	53,039
Amounts due from group undertakings	16,199,237	20,770,728
	<u>91,136,961</u>	<u>52,979,008</u>

Intercompany cash pool debtors represent balances held as a result of a sweeping of the Principal Accounts of the cash pool members as part of the management of collective cash needs of the Parties. This balance is considered repayable on demand. Interest on the cash pool is calculated at LIBOR + 80bps for interest received from cash pool members. In 2020, amounts due from group undertakings included 2.3m in respect of interest from cash pool members to ensure an arm's length return on cash pool activities and amounts due to group undertakings included a 1.2m creditor. In 2021, the interest has been moved to the respective intercompany cash pool debtors and creditors and represents 123k and 2.2m Euro respectively of interest receivable.

Intercompany cash pool debtors comprise the following:

	2021 CHF	2020 CHF
General Dynamics European Finance Ltd	55,447,245	24,408,584
Jet Aviation Netherlands B.V.	6,786,137	7,398,490
Jet Aviation France S.A.S	12,682,592	348,167
	<u>74,915,974</u>	<u>32,155,241</u>

Amounts due from group undertakings comprise 1.1m CHF (2020: 3m CHF) in allocations from General Dynamics European Finance Ltd to ensure an arm's length return on cash pooling activities and a 15.1m CHF (2020: 17.6m CHF) loan to Jet Aviation Asia Pacific. The loan is due and payable on demand with interest calculated at 0.18% and reset every 6 months to equal the applicable federal rate for short-term borrowings.

8 Creditors

	2021 CHF	2020 CHF
Intercompany cash pool	382,684,976	334,364,718
Accruals	112,680	134,144
Other creditors	296	230,505
Amounts due to Group undertakings	45,129,093	38,600,533
	<u>427,927,045</u>	<u>373,329,900</u>

Notes (continued)

8 Creditors (continued)

Intercompany cash pool creditors represent balances held as a result of a sweeping of the Principal Accounts of the cash pool members as part of the management of collective cash needs of the Parties. This balance is considered repayable on demand. Interest on the cash pool is calculated at LIBOR for interest paid to cash pool members.

Intercompany cash pool creditors comprise the following:

	2021 CHF	2020 CHF
General Dynamics European Land Systems - Mowag	277,840,486	184,289,050
Jet Aviation Holdings	64,543,719	60,877,447
General Dynamics European Finance Ltd	40,300,771	89,198,221
	<u>382,684,976</u>	<u>334,364,718</u>

Amounts due to group undertakings includes 1.9m CHF (2020: 0.8k CHF) in allocations due to General Dynamics European Finance Ltd to ensure an arm's length return on cash pooling activities and a loan of 43.2m CHF (2020: 36.7m CHF) from Hawker Pacific Air Services Limited incorporated in Hong Kong which is repayable on demand. Interest on the loan is 0.33% representing the semi-annual compounding short term applicable federal rate.

9 Share capital

The share capital of the company comprises ordinary shares.

	2021 Number of shares	CHF	2020 Number of shares	CHF
<i>Allotted, called up and fully paid £1 shares</i>	3	4	3	4
	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>

10 Ultimate parent company

The Company is a 100% owned subsidiary undertaking of General Dynamics Global Holdings Ltd, a company incorporated in England and Wales. General Dynamics Corporation is the ultimate parent company incorporated in the USA.

The largest and smallest group in which the results of the Company are consolidated is that headed by General Dynamics Corporation, incorporated in the USA. The consolidated accounts of the group are available to the public and may be obtained from 11011 Sunset Hills Road, Reston, VA 20190.

11 Accounting Estimates and Judgements

Accounting estimates and judgements

The preparation of the consolidated financial statements in conformity with FRS101 requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. The reported amounts and note disclosures reflect management's best estimate of the most probable set of economic conditions and planned course of actions. Actual results may differ from these estimates.

Significant areas of estimation uncertainty applying accounting policies that have the most significant effect on the amounts recognised in these financial statements include:

Notes (continued)

12 Accounting Estimates and Judgements (continued)

Investment Value/Impairment

The key estimate and judgement exercised by the directors is the investment value in its subsidiaries. Consideration is given to the net asset position and expected future profitability.

There are no critical judgements.

Where not supported by net assets, the fair value of the investments is measured using discounted cash flow analysis incorporating assumptions on risk and uncertainty and includes a risk premium of 2% reflecting the amount that market participants would demand for compensation for the uncertainty inherent in cash flows. Cash flows are derived from each entity's operating plan developed and reviewed on an annual basis and consider a four year forward-looking period. In addition to contractually-expected earnings, the Earnings before interest tax and amortisation (EBITA) include risks and opportunities with probabilities assigned to these. The period beyond the four year plan is considered as the terminal period and assumes that the forecast stabilises and more uniform assumptions can be used to cover projections such as growth (projected between 2% - 3%), capital expenditure and depreciation (assumed to net to nil provided no new major capital investments beyond the plan period) and tax rate (26.5% based on applicable tax jurisdictions and historical effective tax rates). Other working capital is included as a % of sales with terminal rates provided by the business units.

The forecasted cash flows are discounted using the capital asset pricing model (CAPM) to calculate the weighted average cost of capital (WACC discount rate used of 9.1%). This is considered representative of a market participant's view of risk inherent in the projected cash flows and what they would be willing to pay for the asset. Groups of comparable companies were selected to determine the levered beta and leverage ratio inputs for the CAPM. These groups were selected with great consideration given to the accuracy of market conditions and to determine discount rates that would generally be consistent from year to year.

During the review, sensitivities in assumptions were tested to determine the headroom available in the valuation under different plausible scenarios. In particular, changes were made to projected revenue to recognise similar shortfalls to prior years in instances where actual results have previously been materially different to forecast combined with the existence of external challenges suggestive that actual revenue could be lower. Growth in the short term (1-2 years) has been tested by considering backlog and using rates consistent with typical performance. The growth rate stabilises at the start of the terminal period with rates applied to ensure alignment with industry growth projections and, where applicable, allowances made for industry specific differences (ie degree of customer price sensitivity due to operating in a luxury market) and risks associated with increased inflation, slowing economy and higher fuel prices where relevant.

The sensitivity analysis resulted in an impairment being recognised in Jet Aviation Holdings GmbH.

GENERAL DYNAMICS

2021 | ANNUAL REPORT



Dear Fellow Shareholder

General Dynamics delivered very good results in 2021 despite the ongoing effects of the COVID-19 pandemic on some of our businesses. We remained focused on meeting our customers' needs, developing innovative products and solutions and operating efficiently.

Revenue increased by 1.4% to \$38.5 billion, with record-high revenue and earnings from our defense businesses. Net earnings expanded to \$3.3 billion, diluted earnings per share increased 5% to \$11.55 and return on sales rose to 8.5%. Net cash provided by operating activities increased 11% to \$4.3 billion.

The increase in cash flow improves our financial ability, supports ongoing internal investments and enables us to engage in value-creating activities. Total debt declined by \$1.5 billion, and capital spending remained elevated at nearly \$900 million, with 65% dedicated to modernizing and expanding our Marine Systems businesses, primarily Electric Boat. Company-sponsored research and development rose 11% to \$415 million, driven by Gulfstream's investment in the development of new aircraft. We also repurchased \$1.8 billion of our common stock and paid dividends of \$1.3 billion.

Our Aerospace group generated market-leading performance with operating earnings again over \$1 billion on revenue of \$8.1 billion. Orders for the year, the best in over a decade, exceeded \$13 billion across our portfolio. This compelling demand translated into more orders than deliveries for all in-production models, as well as supporting the introduction of the G700 and the newly launched G800 and G400. These airplanes, together with the G500 and G600, set the stage for a bright future.

Our Aerospace services businesses made great strides during the year with sales growing 16% year over year. With over 50 locations worldwide, we are able to support our customers anywhere in the world. We also continue to lead the industry in reducing our carbon footprint through the development of new, more fuel-efficient aircraft and the expansion in use and availability of sustainable aviation fuel.

Marine Systems, equipped with advanced tools and new facilities, continued to deliver ships to the U.S. Navy as it increases the size of its fleet. Revenue rose 5.5% to \$10.5 billion and operating earnings grew 2.3% to \$874 million, setting records for the fourth consecutive year.

We are making good progress on the first Columbia submarine. We are ahead of both internal schedules and cost performance against the first Virginia-class submarine. Electric Boat was awarded \$1.9 billion for the 10th Block V Virginia-class submarine. NASSCO is constructing the third John Lewis-class oiler and captured a strong flow of work for its repair business. After coming through a difficult strike, the Bath management team and union workforce are showing improvement to both schedule and cost performance on the DDG -51 destroyers, which we find very encouraging.

Combat Systems delivered another year of solid performance, with revenue up 1.8% to \$7.35 billion and operating profits up by 2.5%, to \$1.07 billion. Operating margins of 14.5% reflect the group's focus on operating excellence and mark the ninth consecutive year of mid-teens margins. Demand for our combat vehicles and munitions remains strong, particularly in Europe, with the Abrams main battle tank garnering significant interest from many U.S. allies. In the United States, both the Stryker wheeled combat vehicle and the Abrams main battle tank are critical to the U.S. Army's war fight. We are in the process of upgrading both vehicles to provide additional combat capability and survivability.

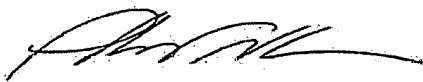
The Technologies group was the most affected of our defense businesses by COVID-19 in 2021. Many of our employees had difficulty accessing government locations. In addition, supply chain shortages at Mission Systems, particularly chips, impacted its ability to ship product and drive revenue. Nonetheless, both Mission Systems and GDIT focused on performance, overcoming a 1.5% decline in revenue over 2020 by driving earnings up \$64 million, or 5.3%. Operating margin improved by 60 basis points to 10.2%. Cash flow performance was particularly strong with GDIT generating well over 100% of its imputed net income. Submitted bids awaiting decision ended the year well above the year-ago level. GDIT also delivered a book-to-bill of 1.1-to-1 on a 2.2% increase in sales.

In March 2022, the board of directors raised the dividend by 5.9% to a quarterly rate of \$1.26 per share. This marks the 25th consecutive year of dividend increases.

The capital markets recognized our progress and that resulted in a 40% appreciation in our stock for the calendar year. When coupled with our dividend, investors enjoyed a total shareholder return of 43.7%.

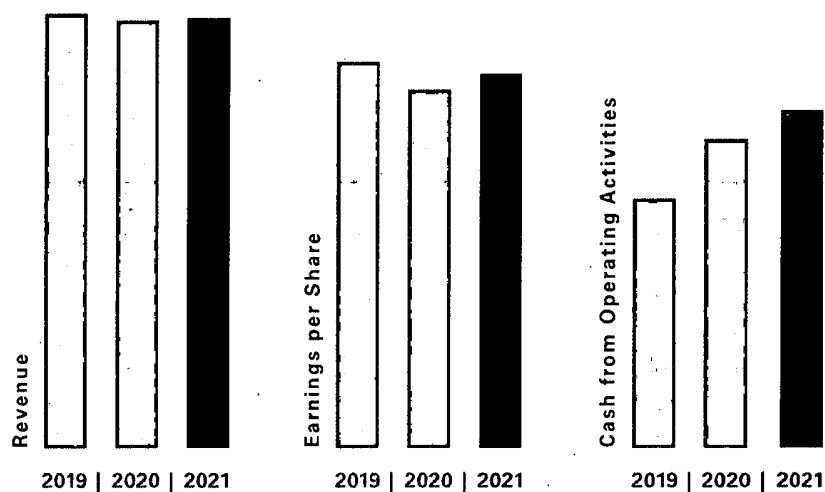
So, as we look back over the last two years of the pandemic, our leadership team has remained resilient and steadfast, continuously in their offices, on the shop floor, in labs and on the deck plates. Our workforce has been by our side throughout and it is our privilege and honor to serve with them. This past year was a year of superb execution in an extremely difficult environment. Most importantly, it was also a year of strategic positioning for growth across the business in the near term.

As we look to this year, we remain committed to improving performance, driving cash, increasing margins and creating shareholder value.



PHEBE N. NOVAKOVIC
Chairman and CEO
March 24, 2022

2021 FINANCIAL HIGHLIGHTS



Years Ended December 31	2019	2020	2021
Revenue	\$39,350	\$37,925	\$38,469
Operating Earnings	4,570	4,133	4,163
Diluted EPS	11.98	11.00	11.55
Cash from Operating Activities	2,981	3,858	4,271
Cash Dividends per Share	4.08	4.40	4.76

Dollars in millions, except per-share amounts

Our determination to be a leader in each of our markets is grounded in the view that this position will lead to superior returns over time.

10.8%

OPERATING
MARGIN

11.9%

RETURN
ON INVESTED
CAPITAL*

43.7%

TOTAL
SHAREHOLDER
RETURN*
YEAR-OVER-YEAR GROWTH

\$1.3 Billion

CAPITAL
EXPENDITURES
AND COMPANY-
SPONSORED R&D

\$1.3 Billion

DIVIDENDS
PAID

\$1.8 Billion

SHARE
REPURCHASES

\$87.6 Billion

BACKLOG

\$127.5 Billion

TOTAL
ESTIMATED
CONTRACT VALUE

* See 10-K for discussion of non-GAAP measures. Total shareholder return is defined as change in share price plus dividend yield.



We design, manufacture and service the most advanced and reliable family of business jets in the world. Gulfstream's powerful brand recognition is the product of its relentless focus on innovation. Our disciplined and consistent investment in research and development has enabled Gulfstream to introduce eight all-new aircraft models since 2008, continuing to raise the bar on performance, safety, efficiency and comfort.

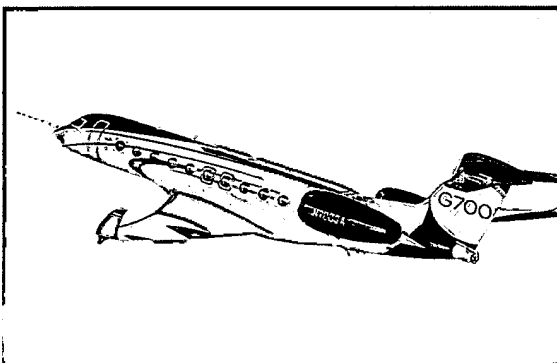
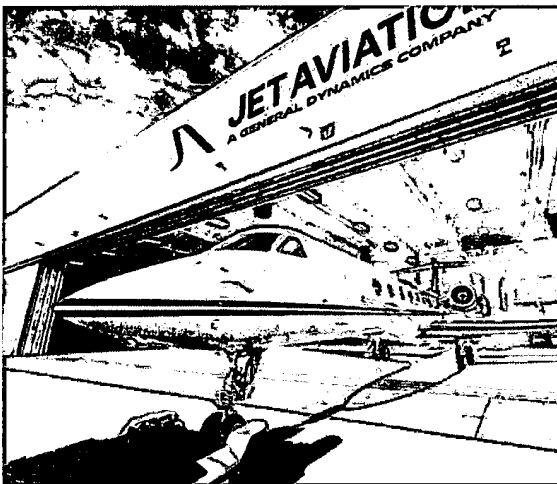
In 2021, we introduced the ultra-long-range, ultra-large-cabin G800 and the large-cabin G400, completing a nearly two-decade development effort. G800 customer deliveries are anticipated to begin in 2023, and G400 deliveries are anticipated to begin in 2025, pending certification. Our all-new flagship G700 is nearing full certification.

Our other aerospace subsidiary, Jet Aviation, offers a comprehensive suite of business aircraft services, including completions, fixed-base operations, fleet management, maintenance, repair and overhaul. With more than 50 locations worldwide, Jet Aviation ensures the global availability of services for the more than 3,000 Gulfstream aircraft currently in service around the world, as well as aircraft produced by other manufacturers.

We lead the industry in sustainability by designing aircraft that achieve unparalleled fuel efficiency, while minimizing noise and emissions, and by promoting the availability and adoption of sustainable aviation fuel (SAF) in support of the industrywide effort to cut carbon emissions in half by 2050. As the business aviation market grows, we are poised to remain the manufacturer and service provider of choice for the most discerning customers.

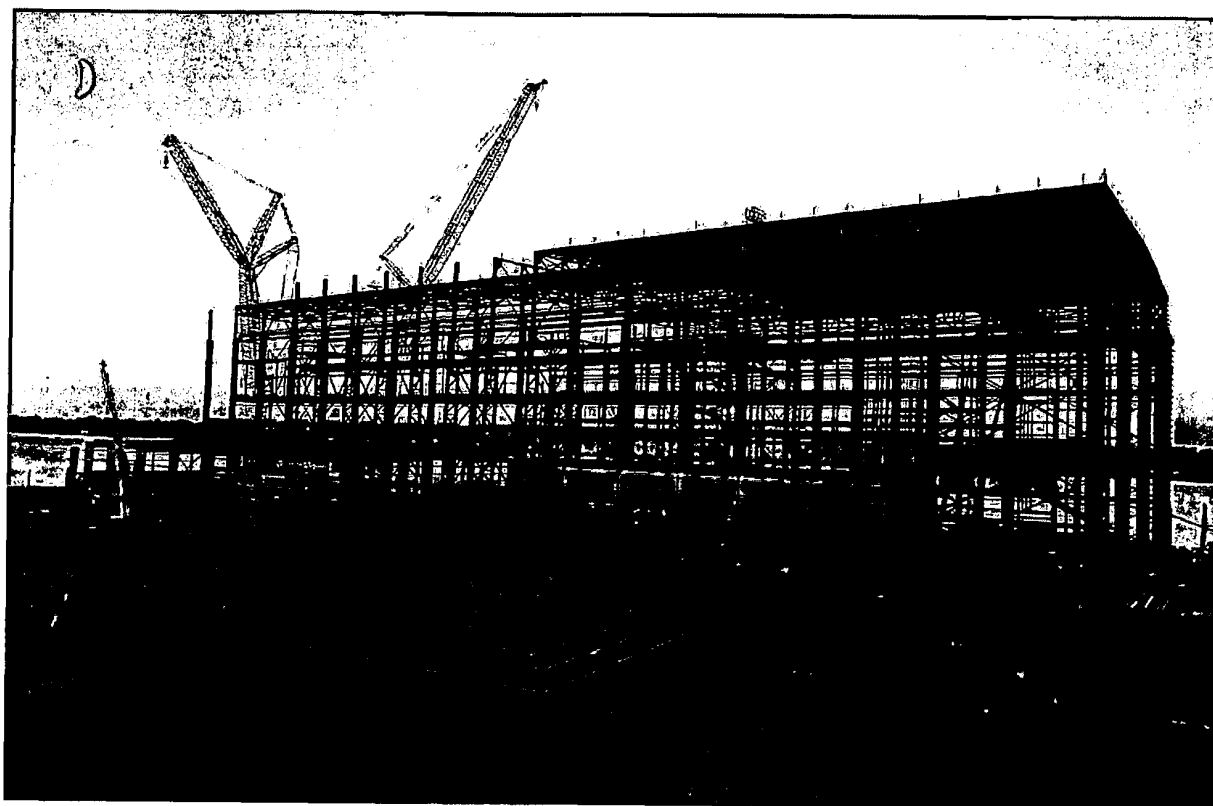
The year's highlights include:

- Delivered to customers a total of 119 aircraft, of which 103 were large-cabin aircraft
- Recorded the highest order activity for new aircraft, in both dollar and unit terms, since 2008, ending the year with \$16.3 billion in backlog
- Introduced the Gulfstream G800, the longest-range jet in business aviation, and the Gulfstream G400, the smallest of our large-cabin aircraft
- Flew the first fully outfitted ultra-long-range, ultra-large-cabin Gulfstream G700, joining five other test aircraft already in the steadily maturing certification program, and setting multiple international city-pair records
- Delivered the 63rd Gulfstream G600, just two years after its first delivery in 2019
- Delivered the final commercial Gulfstream G550, joining the more than 600 G550s already in service
- Led the industry in the adoption of SAF, purchasing more than 1.6 million gallons to date, expanding its supply and availability at our service locations, and introducing a global book and claim service to allow customers to achieve carbon reduction for SAF even where it is not yet physically available
- Became the first business aircraft manufacturer to sign the World Economic Forum's Clean Skies for Tomorrow 2030 Ambition Statement
- Expanded our global footprint, opening or expanding facilities in Phoenix-Mesa, Arizona; Appleton, Wisconsin; Dallas, Texas; Savannah, Georgia; Scottsdale, Arizona; Basel, Switzerland; and Zurich, Switzerland



Photos left to right:
Gulfstream's aircraft fleet; Jet Aviation FBO in Bedford, Massachusetts; Gulfstream's ultra-long-range, ultra-large-cabin G700 test aircraft

MARINE SYSTEMS



Our Marine Systems segment is the leading designer and builder of nuclear-powered submarines and a leader in surface combatants and auxiliary ship design and construction for the U.S. Navy, as well as Jones Act ships for commercial customers. We operate through three business units: Electric Boat, headquartered in Groton, Connecticut; Bath Iron Works in Bath, Maine; and NASSCO in San Diego, California. Each has outlying facilities spanning the East and West Coasts of the United States.

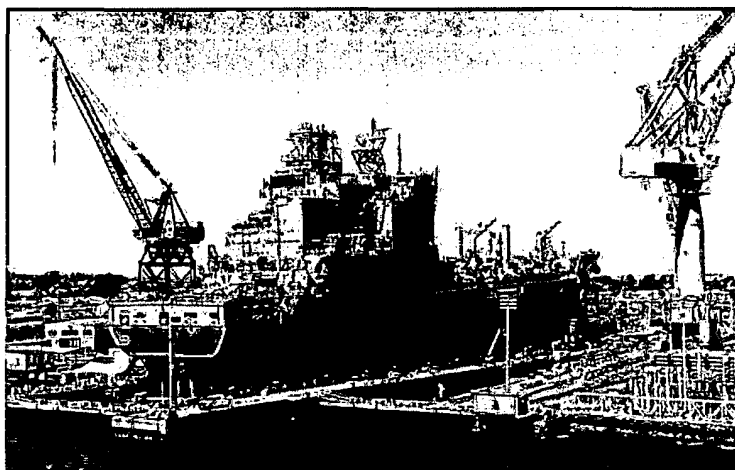
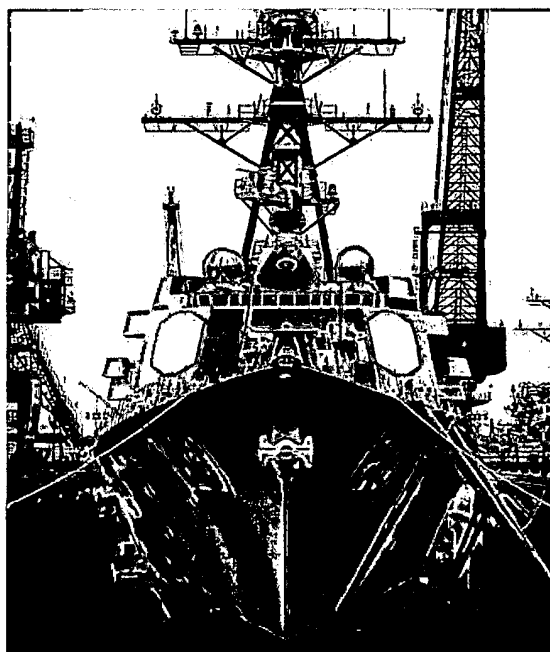
Electric Boat is the prime contractor and lead shipyard for the Virginia-class attack submarine, with 19 boats in backlog through 2031, nine of which will include an Electric Boat-designed and built payload module that adds strike and special operations capabilities. It is also the prime contractor for the Columbia-class ballistic-missile submarine, a 12-boat, \$110 billion program of record the Navy considers its top acquisition priority.

Bath Iron Works builds and manages the Arleigh Burke-class (DDG 51) guided-missile destroyer and currently has 10 ships in backlog through 2027. NASSCO builds Expeditionary Sea Base (ESB) ships that serve as afloat forward-staging bases for U.S. Marines and special operations forces, and John Lewis-class (T-AO 205) fleet replenishment oilers.

In response to the nation's increase in demand for submarines and surface ships, we continue to make substantial investments in our facilities, growing our workforce and strengthening our supply chains. The increase in capacity and capabilities will support the strong growth expected in our shipbuilding business for the next two decades.

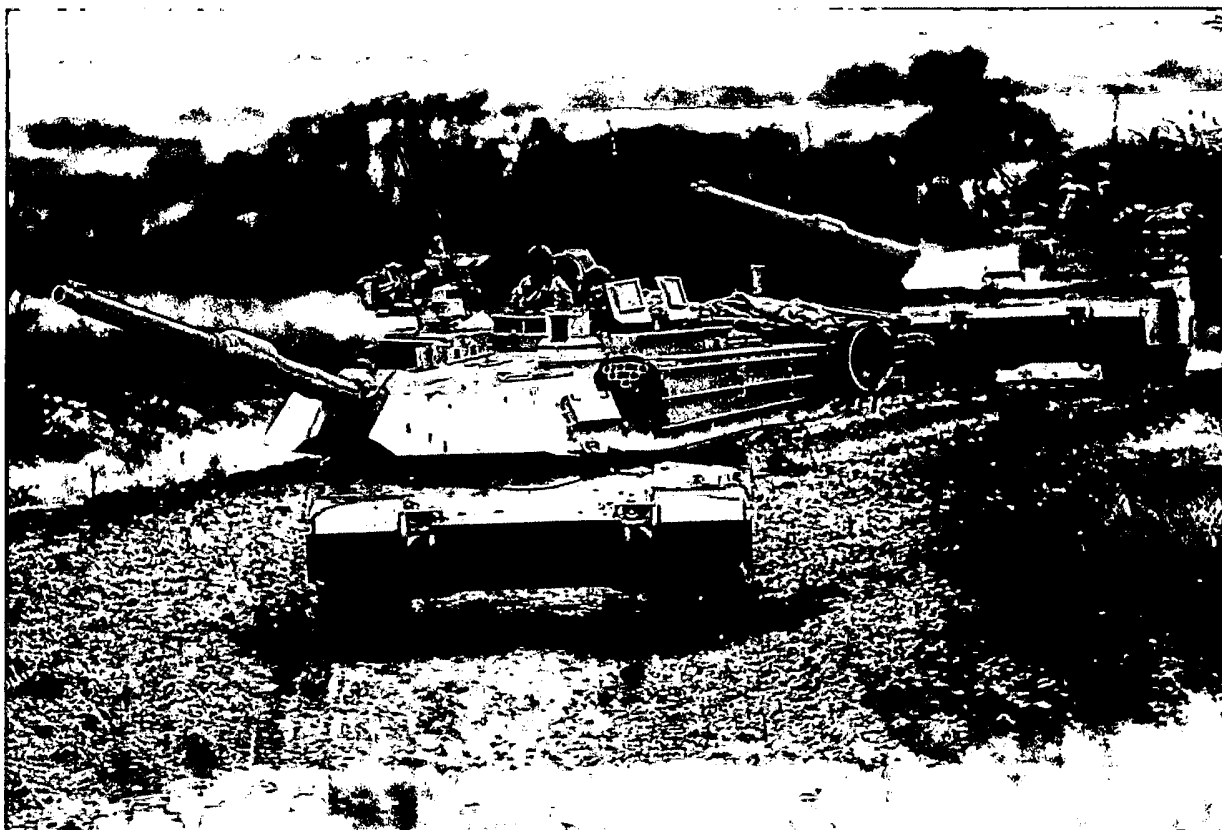
The year's highlights include:

- Awarded \$1.9 billion for construction of a 10th submarine in Block V of the Virginia-class program
- Awarded \$955 million for ongoing lead yard services in support of the Virginia-class submarine program, and \$475 million for ongoing lead yard services in support of the Columbia-class submarine program
- Continued to expand shipyard facilities to support the construction of Columbia-class submarines, to include a new 200,000 square-foot final-assembly building in Groton, Connecticut
- Continued progress on our sizable Arleigh Burke-class destroyer backlog, delivering the future USS Daniel Inouye (DDG 118), christening the future USS Carl M. Levin (DDG 120), and laying the keel of the future USS Harvey C. Barnum Jr. (DDG 124)
- Delivered the future USS Lyndon B. Johnson (DDG 1002), the final destroyer of the Zumwalt class
- Christened and launched the future USNS John Lewis (T-AO 205) and future USNS Harvey Milk (T-AO 206), the first two of six vessels in the John Lewis-class fleet replenishment oiler program, and began construction on the fourth vessel, the future USNS Robert F. Kennedy (T-AO 208)



Photos left to right:

Construction of Columbia-class submarine assembly building, Groton, Connecticut; future USS Carl M. Levin (DDG 120), Bath Iron Works, Bath, Maine; John Lewis-class fleet replenishment oiler, NASSCO, San Diego, California



Our Combat Systems segment designs, manufactures and sustains the world's most capable, mobile and survivable land combat platforms and munitions and medium caliber armaments for the U.S. and allied militaries through our three business units: Land Systems, European Land Systems and Ordnance and Tactical Systems.

Our installed base of nearly 24,000 vehicles across more than 25 countries worldwide positions us well for modernization programs, support and sustainment services and future development. We are the sole-source producer of two foundational platforms central to the U.S. Army's warfighting capabilities: the Abrams main battle tank and the Stryker wheeled combat vehicle, both of which are undergoing significant upgrades.

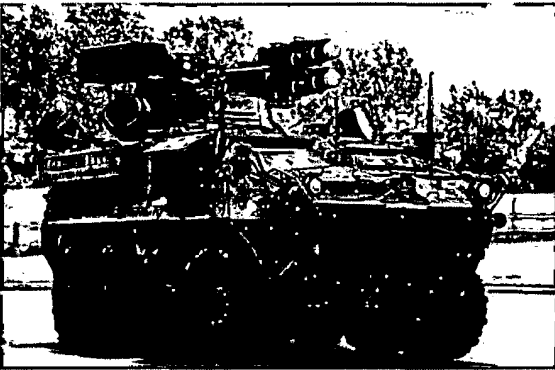
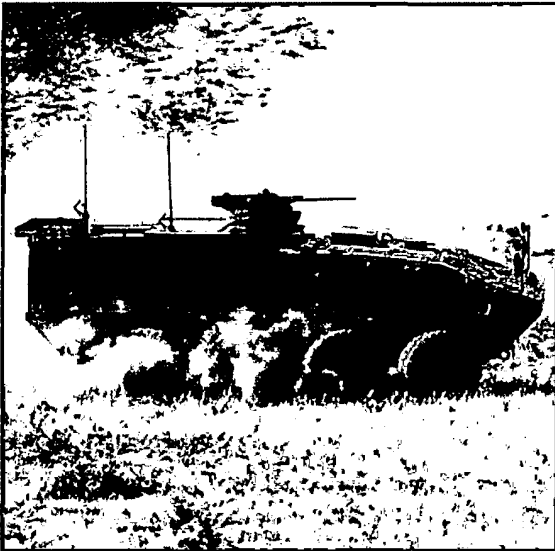
We also produce the ASCOD family of medium-weight tracked combat vehicles, market-leading light armored vehicles (LAVs) including the Piranha and Pandur, the Duro and Eagle classes of wheeled tactical vehicles, as well as mobile bridge systems able to support payloads up to 100 tons.

We are also expanding our platform capabilities through continued investment in robotic and autonomous vehicle technology.

In addition, we produce armaments and munitions that support nearly all kinetic military systems in today's U.S. arsenal. We remain closely aligned with our customers to meet their future needs, including working directly with the Army's cross-functional teams to design solutions that fulfill its modernization objectives.

The year's highlights include:

- Awarded \$555 million to produce Piranha 5 wheeled armored vehicles and provide associated support services to the Romanian Armed Forces
- Awarded \$290 million from the Army for Abrams main battle tank upgrades, mission control units and systems technical support, and \$70 million to upgrade Abrams tanks to the M1A2 Systems Enhancement Package Version 3 (SEPV3) configuration
- Awarded \$845 million from the Army for Stryker vehicle upgrades, inventory management and support services and \$435 million to produce Stryker Maneuver Short-Range Air Defense (M-SHORAD) vehicles
- Awarded \$305 million for the production of an M1A2 Abrams tank variant for an international customer
- Awarded \$110 million to produce M3 amphibious bridging vehicles for an international customer
- Awarded \$665 million of significant contracts to produce various munitions, ordnance and missile subcomponents
- Awarded \$175 million in contracts from the Army for the production of Hydra-70 rockets



Photos left to right:
Abrams M1A2 SEPv3 main battle tanks;
Piranha armored fighting vehicle; Stryker
M-SHORAD combat vehicle

TECHNOLOGIES



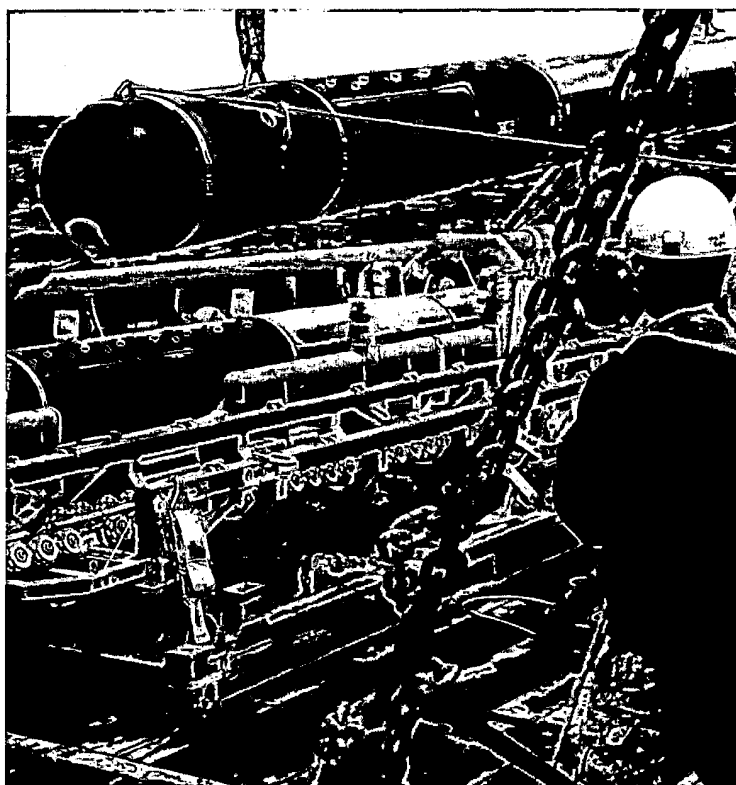
Our Technologies segment, consisting of General Dynamics Information Technology and General Dynamics Mission Systems, offers a full spectrum of services, technologies and products that combine specialized hardware and software. We address the growing demand from customers who prioritize technology solutions as a critical element of their missions.

Our 40,000 technologists, engineers, mission experts and other professionals, who often possess top security clearances, are embedded across the defense, intelligence and federal civilian markets, enabling customers to leverage cloud, high-performance computing, analytics and artificial intelligence to secure the nation's most sensitive information, improve government services and inform critical decision-making.

As an original equipment manufacturer, we are well positioned to provide purpose-built products that bring these capabilities reliably and securely to the most rugged or inhospitable locations, from the battlefield to the undersea domain to deep space.

The year's highlights include:

- Awarded \$2.5 billion for several key contracts for classified customers
- Awarded a contract with a maximum potential value of \$12.6 billion among multiple awardees to provide information technology and technical support services to the Defense Intelligence Agency (DIA) and the National Geospatial-Intelligence Agency (NGA) under the Solutions for the Information Technology Enterprise (SITE) III program
- Awarded a U.S. Army contract with a maximum potential value of \$535 million for hardware, software and logistics sustainment support
- Awarded \$355 million with a maximum potential value of \$600 million to design, develop, implement and operate a state's healthcare exchange
- Awarded \$395 million from the Army for computing and communications equipment under the Common Hardware Systems-5 (CHS-5) program
- Awarded \$285 million from the Centers for Medicare and Medicaid Services (CMS) for several contracts, including work to provide cloud services and software tools
- Awarded a contract with a maximum potential value of \$220 million for the development, production and sustainment of a cryptographic touchscreen wireless device for the Army
- Awarded a contract with a maximum potential value of \$190 million from the U.S. Patent and Trademark Office (USPTO) for enterprise cloud modernization
- Awarded \$160 million to provide ship modernization services for the U.S. Navy, with a maximum potential value of \$730 million
- Delivered the first Knifefish surface mine countermeasure unmanned undersea vehicle (UUV) system to the Navy and opened the General Dynamics Mission Systems UUV Manufacturing and Assembly Center of Excellence in Taunton, Massachusetts



Photos left to right:
Enabling secure communications on the battlefield;
Knifefish unmanned undersea vehicle; opening of
geospatial innovation center in St. Louis



TRANSPARENCY. TRUST. ALIGNMENT. HONESTY.

These four values undergird everything we do at General Dynamics — they are our defining moral character. Through our shared Ethos, we ensure that we continue to be good stewards of the investments our shareholders, customers, employees and communities make in us, now and in the future.

GENERAL DYNAMICS

General Dynamics Corporation
11011 Sunset Hills Road
Reston, VA 20190

The appearance of U.S. Department of Defense photos does not imply or constitute DoD endorsement.

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President
Information Technology

GENERAL DYNAMICS

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 1-3671

GENERAL DYNAMICS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

13-1673581

State or other jurisdiction of incorporation or organization

I.R.S. Employer Identification No.

11011 Sunset Hills Road Reston, Virginia

20190

Address of principal executive offices

Zip code

(703) 876-3000

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	GD	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes ☒ No ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting common equity held by non-affiliates of the registrant was \$46,753,289,081 as of July 4, 2021 (based on the closing price of the shares on the New York Stock Exchange).

277,697,967 shares of the registrant's common stock, \$1 par value per share, were outstanding on January 30, 2022.

DOCUMENTS INCORPORATED BY REFERENCE:

Part III incorporates by reference information from certain portions of the registrant's definitive proxy statement for the 2022 annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year.

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PART I

ITEM 1. BUSINESS

(Dollars in millions, except per-share amounts or unless otherwise noted)

BUSINESS OVERVIEW

General Dynamics is a global aerospace and defense company that specializes in high-end design, engineering and manufacturing to deliver state-of-the-art solutions to our customers. We offer a broad portfolio of products and services in business aviation; ship construction and repair; land combat vehicles, weapons systems and munitions; and technology products and services. Our leadership positions in attractive business aviation and defense markets enable us to deliver superior and enduring shareholder returns.

Our company consists of 10 business units, which are organized into four operating segments: Aerospace, Marine Systems, Combat Systems and Technologies. We refer to the latter three collectively as our defense segments. To optimize its market focus, customer intimacy, agility and operating expertise, each business unit is responsible for the development and execution of its strategy and operating results. This structure allows for a lean corporate function, which sets the overall strategy and governance for the company and is responsible for allocating and deploying capital.

Our business units seek to deliver superior operating results by endeavoring to build industry-leading franchises. To achieve this goal, we invest in advanced technologies, pursue a culture of continuous improvement, and strive to be the low-cost, high-quality provider in each of our markets. The result is long-term value creation measured by strong earnings and cash flow and an attractive return on capital.

Over the past nine years, we have invested approximately \$22 billion to create, renew or expand our portfolio of products and services across our businesses to drive long-term growth and shareholder value creation. This includes product development investments in Aerospace to bring to market an all-new lineup of business jet aircraft, capital investments in Marine Systems to support significant growth in U.S. Navy ship and submarine construction plans over the next two decades, development of next-generation platforms and technologies to meet customers' emerging requirements in Combat Systems, and strategic acquisitions to achieve critical mass and build out a complete spectrum of solutions for our Technologies customers.

Following is additional information on each of our operating segments. For a supplemental discussion of segment performance and backlog, see Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7.

AEROSPACE

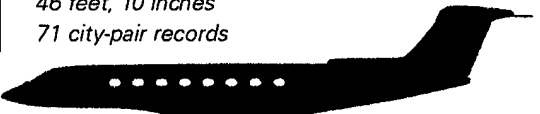
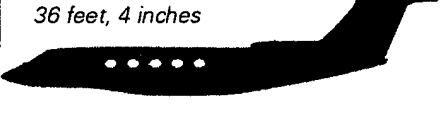
Our Aerospace segment is recognized as a leading producer of business jets and the standard bearer in aircraft repair, support and completion services. The segment consists of our Gulfstream and Jet Aviation business units. We have earned our reputation through:

- superior aircraft design, quality, performance, safety and reliability;
- technologically advanced flight deck and cabin systems; and
- industry-leading customer support.

We believe the key to long-term value creation in the business jet industry is steady investment in new aircraft models and technologies and in customer service capabilities. As a result, since we acquired Gulfstream over 20 years ago, we have made significant investments in research and development (R&D), state-of-the-art manufacturing facilities, and maintenance and support through a combination of product development efforts, capital expansion and the acquisition of Jet Aviation's global support network.

We are committed to continual investment in R&D to create new aircraft that consistently broaden customer offerings while raising the bar for safety and performance. The result is the unprecedented development of an all-new lineup of the most technologically advanced business jet aircraft in the world. The Gulfstream family of aircraft offer industry-leading cabin, cockpit and safety technologies and the longest ranges at the fastest speeds in their respective classes.

The following represents Gulfstream's current product line, along with the maximum range, maximum speed, cabin length (excluding baggage), and total number of city-pair speed records held for each aircraft:

G800	8,000 nautical miles Mach 0.925 46 feet, 10 inches		G600	6,600 nautical miles Mach 0.925 45 feet, 2 inches 26 city-pair records	
G700	7,500 nautical miles Mach 0.925 56 feet, 11 inches 5 city-pair records		G500	5,300 nautical miles Mach 0.925 41 feet, 6 inches 42 city-pair records	
G650ER	7,500 nautical miles Mach 0.925 46 feet, 10 inches 71 city-pair records		G400	4,200 nautical miles Mach 0.90 36 feet, 4 inches	
G650	7,000 nautical miles Mach 0.925 46 feet, 10 inches 51 city-pair records		G280	3,600 nautical miles Mach 0.85 25 feet, 10 inches 77 city-pair records	

Note: Range subject to multiple variables

The most recent additions to the in-service Gulfstream fleet are two new large-cabin aircraft, the G500 and G600, which entered service in 2018 and 2019, respectively. These clean-sheet (i.e., all-new) aircraft replace the G450 and G550 models, whose combined family has an installed base of more than 1,650 aircraft around the world. Our investment included development of a new wing, new avionics,

new fuselage and new ergonomically designed larger interiors, as well as systems and technologies to improve the manufacturing process and quality of the platform. As a result, the G500 and G600 are faster, more fuel efficient and have greater cabin volume, more range and improved flight controls compared with the aircraft they are replacing. At year-end 2021, cumulative deliveries for these aircraft totaled almost 150.

The next model to join the Gulfstream lineup is the ultra-long-range, ultra-large-cabin G700. It combines our most spacious cabin with our advanced Symmetry Flight Deck, the industry's most technologically advanced flight deck, which we launched on our G500 and G600 aircraft, and the superior high-speed performance of all-new engines to create best-in-class capabilities. Gulfstream is in the process of flight testing and certification of the G700, which currently has over 2,200 test hours. We expect the G700 to enter service in the fourth quarter of 2022 pending certification from the U.S. Federal Aviation Administration (FAA).

In October 2021, we introduced two new aircraft, the ultra-long-range, ultra-large-cabin G800 and large-cabin G400, completing a nearly two-decade effort to develop an all-new family of Gulfstream aircraft. Both aircraft combine our industry-leading high-speed range and efficiency, safety enhancements, and our advanced Symmetry Flight Deck. The G800 is Gulfstream's longest-range aircraft, with an 8,000 nautical mile range at Mach 0.85, and it is expected to enter service in 2023 pending FAA certification. The G400 is a clean-sheet design developed in concert with the G500 and G600, thus expanding the commonality across the Gulfstream family of aircraft. Expected to enter service in 2025 pending FAA certification, the G400 will join a market segment in which Gulfstream has not participated for several decades.

The ultra-long-range, ultra-large-cabin G650 and G650ER continue to generate significant customer interest, with more than 470 aircraft of this family currently operating in 50 countries. Since the first G650 entered service in December 2012, its capabilities and reliability have led to significant sales and expansion of our installed base around the globe. Gulfstream's current product line holds more than 270 city-pair speed records, more than any other business jet manufacturer, led by the G650ER, which holds the National Aeronautic Association's polar and westbound around-the-world speed records.

Our disciplined and consistent approach to new product development has allowed us to introduce repeatedly first-to-market capabilities that set industry standards for safety, performance, quality, speed and comfort. Product enhancement and development efforts include initiatives in advanced avionics, composites, flight-control and vision systems, acoustics, and cabin technologies.

Gulfstream designs, develops and manufactures aircraft in Savannah, Georgia, including all large-cabin models. The mid-cabin G280 is assembled by a non-U.S. partner. All models are outfitted in Gulfstream's U.S. facilities. As Gulfstream's aircraft portfolio and customer base have grown and become increasingly global in reach over the years, we have invested in our facilities and operations around the world. At our Savannah campus, we added new purpose-built manufacturing facilities, increased aircraft service capacity, and opened a customer-support distribution center and a dedicated R&D campus.

We offer comprehensive support for the more than 3,000 Gulfstream aircraft in service around the world and operate the largest factory-owned service network in the industry. We continue to invest in these maintenance, repair and overhaul (MRO) facilities and inventory to accommodate fleet growth. We also operate a 24/7 year-round customer support center and offer on-call Gulfstream aircraft technicians ready to deploy around the world for customer service requirements under our Field and Airborne Support Team (FAST) rapid-response unit.

In addition to expanding the reach of Gulfstream's aircraft maintenance network outside the United States, Jet Aviation provides a comprehensive suite of innovative aircraft services for aircraft owners and operators around the world. With approximately 50 locations throughout North America, Europe, the Middle East and the Asia-Pacific region, our offerings include maintenance, aircraft management, charter, staffing and fixed-base operator (FBO) services.

Jet Aviation manages nearly 300 business aircraft globally on behalf of individuals and corporate owners. We operate a leading global FBO network and support all aircraft types with the full range of maintenance services, including 24/7 global aircraft-on-ground support. We also operate one of the world's largest custom completion and refurbishment centers for both narrow- and wide-body aircraft and perform modifications, upgrades and lifecycle sustainment support for various government fleets. We continue to grow our global footprint through acquisitions, expansions and significant renovations in key business aviation markets.

The following map displays the broad reach of our combined Gulfstream and Jet Aviation services network, including authorized service centers:



The Aerospace segment is committed to sustainability and the reduction of aviation's carbon footprint. In support of this strategy, Gulfstream and Jet Aviation offer sustainable aviation fuel through our combined services network and lead the industry in total gallons supplied to the business jet market. Furthermore, we offer carbon offset credits and book and claim options to our customers, enabling them to operate aircraft on a carbon-neutral basis.

Revenue for the Aerospace segment was 21% of our consolidated revenue in 2021 and 2020 and 25% in 2019. Revenue by major products and services was as follows:

Year Ended December 31	2021	2020	2019
Aircraft manufacturing	\$ 5,864	\$ 6,115	\$ 7,541
Aircraft services	2,271	1,960	2,260
Total Aerospace	\$ 8,135	\$ 8,075	\$ 9,801

MARINE SYSTEMS

Our Marine Systems segment is the leading designer and builder of nuclear-powered submarines and a leader in surface combatant and auxiliary ship design and construction for the U.S. Navy. We also provide maintenance, modernization and lifecycle support services for Navy ships and maintain the most sophisticated marine engineering expertise in the world to support future capabilities. Our ability to design, build and maintain our nation's most technologically sophisticated warships is a critical element of the U.S. defense industrial base. In addition to Navy ships, we design and build ocean-going Jones Act ships for commercial customers. Marine Systems consists of three business units — Electric Boat, Bath Iron Works and NASSCO.

In support of our Navy customer's significant increase in demand for submarines and surface ships, we are making substantial investments to expand our facilities, grow and train our workforce, and expand our supply chain. The resulting increase in capacity and capabilities will support the unprecedented growth expected in our shipbuilding business, particularly submarines, for the next two decades.

Electric Boat is the prime contractor and lead shipyard on all Navy nuclear-powered submarine programs. The business is responsible for all aspects of design and engineering and leads the construction of both the Virginia-class attack submarine and the Columbia-class ballistic-missile submarine.

The Navy procures Virginia-class submarines in multi-boat blocks, currently at a two-per-year rate. We are currently working on Blocks IV and V in the program, with 19 Virginia-class submarines in our backlog scheduled for delivery through 2031. Nine of the boats in Block V include the Virginia Payload Module (VPM), an 84-foot Electric Boat-designed-and-built hull section that adds four additional payload tubes, more than tripling the strike capacity of these submarines and providing unique capabilities to support special missions.

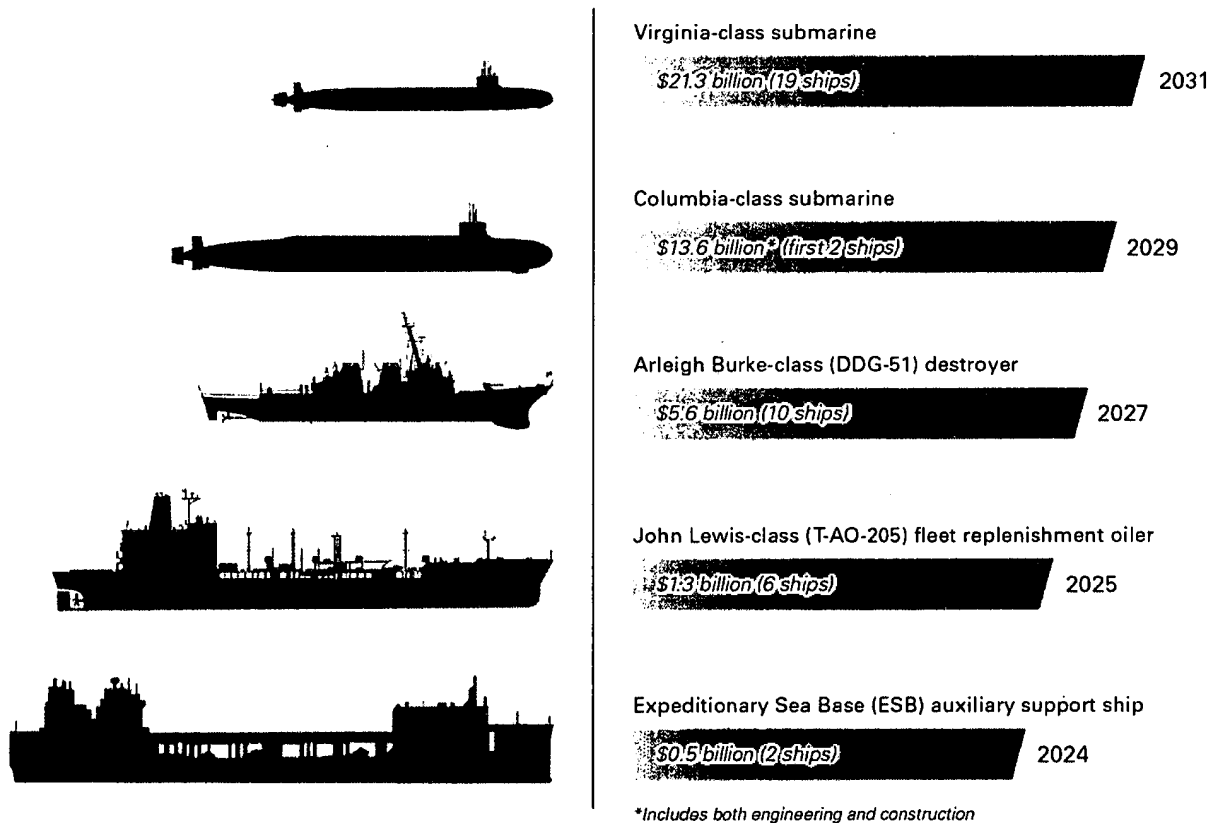
The Columbia-class ballistic-missile submarine is a 12-boat program that the Navy considers its top acquisition priority. Accordingly, the program has received the highest possible rating from the government's Defense Priorities and Allocations System (DPAS). These submarines will provide strategic deterrent capabilities for decades, with the first boat delivering in 2027 to begin replacement of the current Ohio-class ballistic-missile submarine fleet as it reaches the end of its service life. Construction is scheduled to continue for two decades, and the value of the Navy's program of record is in excess of \$110 billion. The submarine's design was more than 80% complete at the time we began construction of the first boat in 2020, nearly twice as mature as any of the Navy's previous submarine programs at the start of construction.

We are investing \$1.8 billion of capital in expanded and modernized facilities at Electric Boat to support the growth in submarine construction and expect the projects to be substantially complete by the end of 2023. Equal to the commitment of capital is our commitment to our Electric Boat workforce, which is on track to grow approximately 25% in the current decade, particularly in support of Columbia-class production. Along with strong contributions from the states of Connecticut and Rhode Island, we continue to invest in the training and tools necessary for our employees to be prepared to deliver these next-generation submarines to the Navy on time and on budget. We are also working with our network of approximately 3,000 suppliers — mostly small businesses — to support concurrent production of the two submarine programs.

Bath Iron Works builds the Arleigh Burke-class (DDG-51) guided-missile destroyers and manages modernization and lifecycle support for the class. We have a total of 10 ships in backlog scheduled for delivery through 2027.

NASSCO specializes in Navy auxiliary and support ships and is currently building the Expeditionary Sea Base (ESB), which serves as an afloat forward-staging base for U.S. Marines and special operations forces, and the John Lewis-class (T-AO-205) fleet replenishment oiler. Work on the two ESBs in backlog will continue into 2024, while the initial ships in the T-AO-205 program have deliveries planned into 2025. NASSCO has also designed and built crude oil and product tankers and container and cargo ships for commercial customers, satisfying Jones Act requirements that ships carrying cargo between U.S. ports be built in U.S. shipyards.

On December 31, 2021, backlog for our major ship construction programs and the scheduled final delivery date of ships currently in backlog were as follows:



In addition to design and construction activities, our Marine Systems segment provides comprehensive post-delivery services to modernize and extend the service life of these and other Navy ships. NASSCO conducts full-service maintenance and surface-ship repair operations in Navy fleet concentration areas in San Diego, California; Norfolk, Virginia; Mayport, Florida; and Bremerton, Washington. Electric Boat provides submarine maintenance and modernization services in a variety of U.S. locations, and Bath Iron Works provides lifecycle support services for Navy surface ships in both U.S. and overseas ports. In support of allied navies, we offer program management, planning, engineering and design support for submarine and surface-ship construction programs.

Revenue for the Marine Systems segment was 27% of our consolidated revenue in 2021, 26% in 2020 and 23% in 2019. Revenue by major products and services was as follows:

Year Ended December 31	2021	2020	2019
Nuclear-powered submarines	\$ 7,117	\$ 6,938	\$ 6,254
Surface ships	2,328	2,055	1,912
Repair and other services	1,081	986	1,017
Total Marine Systems	\$ 10,526	\$ 9,979	\$ 9,183

COMBAT SYSTEMS

Our Combat Systems segment is a premier manufacturer and integrator of land combat solutions worldwide, including wheeled and tracked combat vehicles, weapons systems and munitions. The segment consists of three business units — Land Systems, European Land Systems (ELS), and Ordnance and Tactical Systems (OTS).

Combat Systems creates long-term value through operational excellence — high-quality, on-schedule and on-budget performance — combined with investments in innovative technologies that modernize existing platforms and develop next-generation capabilities to meet our customers' rapidly evolving requirements. We maintain our market-leading position by focusing on innovation, affordability and speed to market to deliver increased survivability, performance and lethality on the battlefield. Our large installed base of wheeled and tracked vehicles around the world and expertise gained from research, engineering and production programs position us well for modernization programs, support and sustainment services, and future development programs.

Land Systems is the sole-source producer of two foundational products central to the U.S. Army's warfighting capabilities — the M1A2 Abrams main battle tank and Stryker wheeled combat vehicle. Both of these platforms are critical to the multi-domain, joint war fight envisioned on the battlefield of the future.

We are maximizing the effectiveness and lethality of the Army's tank fleet with next-generation Abrams upgrades, providing technological advancements in communications, power generation, fuel efficiency, optics and armor. Even as we are delivering this modernized platform in the System Enhanced Package Version 3 (SEPV3) configuration, we are developing an Abrams SEPV4 configuration with additional advanced capabilities, including incorporating next-generation electronic architecture technology that will allow this platform to adapt and incorporate transformative capabilities into the future. We are also upgrading Abrams tanks for several non-U.S. partners.

The Stryker is an eight-wheeled, medium-weight combat vehicle that combines lethality, mobility and survivability. Land Systems continues to develop upgrades and enhancements to this highly versatile and combat-proven platform to address the Army's evolving operational needs. We are fielding a new-generation Stryker that includes the double-V-hull (DVH) for survivability, increased power, improved cross-country mobility and an advanced digital, in-vehicle network. We have completed fielding these vehicles for the first of nine Army brigades, as well as for the Army's Ranger Regiment. In addition, coordination continues with the Army for next-generation upgrades to the platform and new uses for the vehicle. Leveraging our rapid prototyping expertise and customer intimacy, we continue to expand the mission capabilities of this platform, including an air defense mission package (M-SHORAD), a state-of-the-art electronic warfare suite, a high-energy laser, a high-power microwave, and several command post options.

Combat Systems provides similar capabilities for U.S. allies through export opportunities and through our operations in several countries around the world, including Canada, the United Kingdom, Spain, Switzerland, Austria and Germany. As a result, we have a market-leading position in light armored vehicles (LAVs) with approximately 14,000 of the high-mobility, versatile Pandur, Piranha and other LAVs in service worldwide.

Land Systems is producing 360 new LAVs in eight variants, including ambulances, command posts, maintenance and recovery vehicles, and troop-carrying vehicles, for the Canadian Army, as well as upgrading its existing fleet. Land Systems is also producing the British Army's AJAX armored fighting vehicle, a next-generation, medium-weight tracked combat vehicle. With six variants, including a reconnaissance vehicle, an armored personnel carrier, and various support platforms, the AJAX family of vehicles offers advanced electronic architecture and proven technology for an unparalleled balance of survivability, lethality and mobility, along with high reliability for a vehicle in its weight class.

ELS is producing and upgrading Piranha vehicles, a premier 8x8 armored combat vehicle, around the world. We are currently providing Piranha 5 vehicles for several countries, including Denmark, Romania and Spain. Additionally, we provide mobile bridge systems with payloads ranging from 100 kilograms to 100 tons to customers worldwide. We offer the ASCOD, a highly versatile tracked combat vehicle with multiple versions, including the Spanish Pizarro and the Austrian Ulan. ELS also offers Duro and Eagle tactical vehicles in a range of options and weight classes and is currently producing these vehicles for Denmark, Luxembourg, Switzerland and Germany, while providing a full range of product support for the German armed forces.

We are expanding our platform capabilities through continued investment in robotic and autonomous vehicle technology. We have the Multi-Utility Tactical Transport (MUTT), a semi-autonomous robotic platform that can be equipped with an array of modular mission payloads for use alongside dismounted soldiers. This platform was selected as the U.S. Army's first robotic vehicle program of record and is officially designated as the Small Multipurpose Equipment Transport (SMET). Additionally, we have the Tracked Robot 10-ton (TRX) prototype, a medium-sized, semi-autonomous combat vehicle that enables critical battlefield roles, such as direct and indirect fire, autonomous resupply, reconnaissance and other battlefield missions.

On December 31, 2021, the installed base for our major vehicle programs, as well as the quantity and scheduled final delivery date of vehicles and vehicle upgrades currently in backlog were as follows:

	Vehicle	Installed Base		Backlog	
		Vehicle Quantity	Countries	Vehicle Quantity	Final Delivery
	ABRAMS Main Battle Tank	3,988	7	476	2025
	STRYKER Wheeled Vehicle	3,362	2	401	2023
	Light Armored Vehicle (LAV)	6,425	7	642	2025
	AJAX / ASCOD Tracked Vehicle	475	4	509	2024
	PANDUR / PIRANHA Armored Vehicle	7,332	25	580	2027
	DURO / EAGLE Tactical Vehicle	2,156	3	1,372	2024

Complementing these military-vehicle offerings, OTS designs, develops and produces a comprehensive array of sophisticated weapon systems for ground forces, including the M2/M2-A1 heavy machine guns and MK19/MK47 grenade launchers. OTS also produces next-generation weapon systems for shipboard and aircraft applications, including high-speed Gatling guns for all U.S. fighter aircraft, including the F-35 Joint Strike Fighter.

OTS's munitions portfolio covers the full breadth of naval, air and ground forces applications across all calibers and weapon platforms for the U.S. government and its non-U.S. partners. Globally, we maintain a market-leading position in the supply of Hydra-70 rockets, general-purpose bombs and bomb bodies, large-caliber tank ammunition, medium-caliber ammunition, military propellants, mortar, and artillery projectiles. OTS is also the systems integrator for the next generation of artillery solutions in support of the Army's Indirect Fire Modernization objectives. Additionally, OTS maintains a leading position providing missile subsystems in support of U.S. tactical and strategic missiles, provisioning both legacy and next-generation missiles with critical aerostructures, control actuators, high-performance warheads and cutting-edge hypersonic rocket cases.

Revenue for the Combat Systems segment was 19% of our consolidated revenue in 2021 and 2020 and 18% in 2019. Revenue by major products and services was as follows:

Year Ended December 31	2021	2020	2019
Military vehicles	\$ 4,699	\$ 4,687	\$ 4,620
Weapons systems, armament and munitions	2,006	1,991	1,906
Engineering and other services	646	545	481
Total Combat Systems	\$ 7,351	\$ 7,223	\$ 7,007

TECHNOLOGIES

Our Technologies segment provides a full spectrum of services, technologies and products to an expanding market that increasingly seeks solutions combining leading-edge electronic hardware with specialized software. The segment is organized into two business units — Information Technology (GDIT) and Mission Systems. Together they serve a wide range of military, intelligence and federal civilian customers with a diverse portfolio that includes:

- information technology (IT) solutions and mission-support services;
- mobile communication, computers, command-and-control and cyber (C5) mission systems; and
- intelligence, surveillance and reconnaissance (ISR) solutions.

This market has experienced a series of structural shifts in recent years, and our response to those trends has further solidified our position as a market leader. Over the past decade, the Department of Defense (DoD), the intelligence community and federal civilian agencies have increasingly prioritized technology solutions as a critical element of their missions. Cloud computing capabilities, cyber security threats, and advancements in artificial intelligence have transformed technology resources from short-cycle back-office support functions to a strategic priority for this customer community. The result is a significant increase in federal IT modernization and technology investments in recent years and a shift to large-scale, end-to-end, highly engineered solutions that require critical mass and a broad array of technology services and hardware offerings to meet these customer demands. The coronavirus (COVID-19) pandemic has only accelerated these trends, which have included an expansion of remote connectivity and added urgency to required technology investments.

These market shifts have resulted in significant consolidation in the industry in recognition of the scale and breadth of capabilities required to meet this growing demand. In response to these market dynamics, in 2015 we combined our C5 and ISR operations into a single Mission Systems business unit, and in 2018 we acquired CSRA, Inc. (CSRA), which doubled the size of our IT services business, brought critical capabilities and repositioned the segment as a leader in this market.

During the four years following the acquisition of CSRA, GDIT and Mission Systems carried out considerable portfolio shaping and realignment. At the top level, the two businesses share the same defense, intelligence and federal civilian customer base and increasingly go to market together to meet the ever-changing information-systems and mission-support needs of these customers. In addition, with the convergence of digital technologies, the two businesses have considerable commonality and benefit from significant complementary pull-through in their core offerings and solution sets, particularly in the areas of cloud computing; artificial intelligence and machine learning (AI/ML); big data analytics; development, security and operations (DevSecOps); software-defined networks; and everything as-a-service (XaaS).

With a broad network of global partners, the segment develops solutions that keep its customers at the leading edge of technology in support of their missions. The segment's highly skilled workforce is one of its key differentiators and comprises approximately 40,000 employees, including technologists, engineers, mission experts and cleared personnel dedicated to solving the toughest security and technology challenges facing the United States and its allies.

GDIT modernizes large-scale IT enterprises and deploys the latest technologies to optimize and protect customer networks, data and information. Operating hundreds of complex digital modernization programs across the federal government, GDIT's expansive portfolio includes cloud strategy and services, cybersecurity, network modernization, managed services, AI/ML, application development, and high-performance computing.

Mission Systems offers solutions across all domains and produces a unique combination of products and capabilities that are purpose-built for essential C5ISR applications. Our technologies and products are often built into platforms and integrated systems on which our customers rely. The business' portfolio includes prime contract programs to provide innovative defense-electronics solutions as well as subcontract efforts that enhance the capabilities of large-scale land, air, sea and space platforms.

The Technologies segment leverages its scale, partnerships and deep knowledge of its customers' missions and challenges to bring innovation to those customers across a portfolio of thousands of contracts. While no individual contract is material to the segment's results, the following highlights provide a sampling of the value of this combined business.

GDIT delivers a full spectrum of cloud solutions and services to modernize customers' legacy IT infrastructures and systems. These cloud capabilities advance security and accelerate access to cutting-edge technologies such as high-performance computing and AI/ML. For the DoD, GDIT is delivering, integrating and supporting Microsoft's cloud-based productivity suite, Microsoft Office 365, under the Defense Enterprise Office Systems (DEOS) contract, which secures and streamlines email and collaborative tools across the DoD enterprise. In the federal civilian market, GDIT is delivering a scalable, hybrid multi-cloud platform to modernize the United States Patent and Trademark Office's IT infrastructure and services.

We apply AI/ML to expand the human capacity to make better decisions and implement smarter actions as we automate, secure and enhance our customers' operations. For the Department of Veterans Affairs (VA), GDIT leverages managed services and AI/ML to accelerate veteran benefits claims processing, develops applications and software to improve the veteran user experience, and provides on-demand 24/7/365 IT support to more than 500,000 VA personnel nationwide. In the federal civilian sector, GDIT supports some of the fastest supercomputers in the world, responsible for biomedical research, weather forecasting and climate modeling.

To adapt to a constantly evolving threat landscape, GDIT embeds cyber solutions into every aspect of digital modernization. More than 3,000 cyber professionals support cyber projects across 30 agencies in the federal government. This work includes modernizing the IT infrastructure for the U.S. Southern Command's (USSOUTHCOM) secured networks with a full range of capabilities, including cyber security, cloud computing and software development.

Mission Systems develops and manufactures combat-proven global positioning systems (GPS) for the U.S. Army. This includes capabilities to ensure reliable satellite connectivity in any location and a suite of Assured Position, Navigation and Timing capabilities, which provide military forces the ability to synchronize communications utilizing trusted data, even when GPS signals are degraded or denied.

We are working with our Army customer to adapt elements of 5G technology to address battlefield realities such as jamming, spoofing, cyberattacks and lack of ground connectivity. We also provide similar capabilities to non-U.S. customers, including Canada and the United Kingdom.

On the platform side, we have a more than 60-year legacy of providing advanced fire-control systems for the Navy's submarine programs. We are developing and integrating commercial off-the-shelf software and hardware upgrades to improve the tactical control capabilities for several submarine classes, including the Columbia and U.K. Dreadnought ballistic-missile submarines.

Mission Systems is also investing in autonomous capabilities, opening in 2021 a new Unmanned Undersea Vehicle (UUV) Manufacturing and Assembly Center of Excellence in Taunton, Massachusetts. The facility will provide manufacturing, assembly, integration and testing capabilities for Mission Systems' Knifefish and Bluefin Robotics UUVs.

Revenue for the Technologies segment was 33% of our consolidated revenue in 2021 and 34% in 2020 and 2019. Revenue by major products and services was as follows:

Year Ended December 31	2021	2020	2019
IT services	\$ 8,069	\$ 7,892	\$ 8,422
C5ISR solutions	4,388	4,756	4,937
Total Technologies	\$ 12,457	\$ 12,648	\$ 13,359

CUSTOMERS

In 2021, 70% of our consolidated revenue was from the U.S. government, 12% was from U.S. commercial customers, 10% was from non-U.S. government customers and the remaining 8% was from non-U.S. commercial customers.

U.S. GOVERNMENT

Our primary customer is the DoD. We also contract with other U.S. government customers, including the intelligence community and the Departments of Homeland Security and Health and Human Services. Our revenue from the U.S. government was as follows:

Year Ended December 31	2021	2020	2019
DoD	\$ 21,386	\$ 20,840	\$ 19,864
Non-DoD	4,862	4,726	5,254
Foreign military sales (FMS)*	598	737	689
Total U.S. government	\$ 26,846	\$ 26,303	\$ 25,807
% of total revenue	70 %	69 %	66 %

* In addition to our direct non-U.S. sales, we sell to non-U.S. governments through the FMS program. Under the FMS program, we contract with and are paid by the U.S. government, and the U.S. government assumes the risk of collection from the non-U.S. government customer.

Our U.S. government revenue is derived from fixed-price, cost-reimbursement and time-and-materials contracts. Our production contracts are primarily fixed-price. Under these contracts, we agree to perform a specific scope of work for a fixed amount. Contracts for research, engineering, repair and maintenance, and other services are typically cost-reimbursement or time-and-materials. Under cost-reimbursement contracts, the customer reimburses contract costs incurred and pays a fixed, incentive or award-based fee. These fees are determined by our ability to achieve targets set in the contract, such as

cost, quality, schedule and performance. Under time-and-materials contracts, the customer pays a fixed hourly rate for direct labor and generally reimburses us for the cost of materials.

Of our U.S. government revenue, fixed-price contracts accounted for 57% in 2021 and 59% in 2020 and 2019; cost-reimbursement contracts accounted for 36% in 2021 and 35% in 2020 and 2019; and time-and-materials contracts accounted for 7% in 2021 and 6% in 2020 and 2019.

For information on the advantages and disadvantages of each of these contract types, see Note B to the Consolidated Financial Statements in Item 8.

U.S. COMMERCIAL

Our U.S. commercial revenue was \$4.8 billion in 2021, \$4.9 billion in 2020 and \$6 billion in 2019, which represented 12%, 13% and 15% of our consolidated revenue in each of the respective years. The majority of this revenue was for business jet aircraft and related services where our customer base consists of individuals and public and privately held companies across a wide range of industries.

NON-U.S.

Our revenue from non-U.S. government and commercial customers was \$6.8 billion in 2021, \$6.7 billion in 2020 and \$7.6 billion in 2019, which represented 18% of our consolidated revenue in 2021 and 2020 and 19% in 2019.

We conduct business with customers around the world. Our non-U.S. defense subsidiaries maintain long-term relationships with their customers and have established themselves as principal regional suppliers and employers, providing a broad portfolio of products and services.

Our non-U.S. commercial revenue consists primarily of business jet aircraft exports and worldwide aircraft services. While the installed base of aircraft is concentrated in North America, orders from customers outside North America represent a significant portion of our aircraft business with approximately 45% of the Aerospace segment's aircraft backlog on December 31, 2021.

COMPETITION

Several factors determine our ability to compete successfully in the defense and business-aviation markets. While customers' evaluation criteria vary, the principal competitive elements include:

- the technical excellence, reliability, safety and cost competitiveness of our products and services;
- our ability to innovate and develop new products and technologies that improve mission performance and adapt to dynamic threats;
- successful program execution and on-time delivery of complex, integrated systems;
- our global footprint and accessibility to customers;
- the reputation and customer confidence derived from past performance; and
- the successful management of customer relationships.

DEFENSE MARKET COMPETITION

The U.S. government contracts with numerous domestic and non-U.S. companies for products and services. We compete against other contractors as well as smaller companies that specialize in a particular technology or capability. Outside the United States, we compete with global defense contractors' exports and the offerings of private and state-owned defense manufacturers. Our Marine Systems segment has one primary competitor with which it also partners on the Virginia-class

submarine program, and to which it subcontracts on the Columbia-class submarine program. Our Combat Systems segment competes with a large number of U.S. and non-U.S. businesses. Our Technologies segment competes with many companies, from large government contracting and commercial technology companies to small niche competitors with specialized technologies or expertise. The operating cycle of many of our major programs can result in sustained periods of program continuity when we perform successfully.

We are involved in teaming and subcontracting relationships with some of our competitors. Competitions for major defense and other government contracting programs often require companies to form teams to bring together a spectrum of capabilities to meet the customer's requirements. Opportunities associated with these programs include roles as the program's integrator, overseeing and coordinating the efforts of all participants on a team, or as a provider of a specific component or subsystem.

BUSINESS JET AIRCRAFT MARKET COMPETITION

The Aerospace segment has several competitors for each of its Gulfstream products. Key competitive factors include aircraft safety, reliability and performance; comfort and in-flight productivity; service quality, global footprint and responsiveness; technological and new-product innovation; and price. We believe that Gulfstream competes effectively in all of these areas.

The Aerospace segment competes worldwide in the business jet aircraft services market primarily on the basis of quality, price and timeliness. While competition for each type of service varies somewhat, the segment faces a number of competitors of varying sizes for each of its offerings.

INTELLECTUAL PROPERTY

We develop technology, manufacturing processes and systems-integration practices. In addition to owning a large portfolio of proprietary intellectual property, we license some intellectual property rights to and from others. The U.S. government holds licenses to many of our patents developed in the performance of U.S. government contracts, and it may use or authorize others to use the inventions covered by these patents. Although these intellectual property rights are important to the operation of our business, no existing patent, license or other intellectual property right is of such importance that its loss or termination would have a material impact on our business.

HUMAN CAPITAL MANAGEMENT

Our company consists of a community of approximately 103,100 employees dedicated to our ethos of transparency, trust, honesty and alignment. These four values drive how we operate our business; govern how we interact with each other and our customers, partners, and suppliers; guide the way that we treat our workforce; and determine how we connect with our communities. Our commitment to ethical business practices is outlined in our Standards of Business Ethics and Conduct, commonly known as our Blue Book. The Blue Book states our expectation that all employees conduct business in accordance with our Ethos, applicable laws and our policies; each employee is asked to acknowledge receipt, understanding of and compliance with our standards.

Due to the highly specialized nature of our business, we are required to hire and train skilled and qualified personnel to design and build the products and perform the services required by our customers. We recognize that our success as a company depends on our ability to attract, develop and retain a

qualified workforce. As such, we promote the health, welfare and safety of our employees. Part of our responsibility includes treating all employees with dignity and respect and providing them with fair, market-based, competitive and equitable compensation. We recognize and reward the performance of our employees in line with our pay-for-performance philosophy and provide a comprehensive suite of benefit options that enables our employees and their dependents to live healthy and productive lives.

Safety in our workplaces is paramount. Across our businesses, we take measures to prevent workplace hazards, encourage safe behaviors and enforce a culture of continuous improvement to ensure our processes help reduce incidents and illnesses and comply with governing health and safety laws. These efforts continue to be of the utmost importance as we address the ongoing challenges presented by the COVID-19 pandemic.

We are committed to promoting diversity of thought, experience, perspectives, backgrounds and capabilities to drive innovation and strengthen the solutions we deliver to our customers because we believe the results lead to a better outcome. We proudly support a culture of inclusion and encourage a work environment that respects diverse opinions, values individual skills and celebrates the unique experiences our employees bring. We are dedicated to equal employment opportunity that fosters and supports diversity in a principled, productive and inclusive work environment. We stand for basic universal human rights, including that employment must be voluntary. We track, measure and analyze our workforce trends to establish accountability for continuing to cultivate diverse and inclusive environments across our businesses and at every level of our company.

Our values motivate us to promote strong workplace practices with opportunities for development and training. Our training and development efforts focus on ensuring that the workforce is appropriately trained on critical job skills as well as leadership behaviors that are consistent with our ethos. We conduct rigorous succession planning exercises to ensure that key positions have the appropriate level of bench strength to provide for future key positions and leadership transitions. We listen to our workforce to assess areas of concern and levels of engagement.

2021 WORKFORCE STATISTICS

- Approximately 85% of our employees are based in the United States, of which roughly 70% are white, 30% are people of color and 20% are veterans of the U.S. armed forces. The remaining 15% of our workforce is based internationally in over 65 countries with the primary concentrations in North America and Europe.
- Our global workforce is 76% male and 24% female with our senior leadership teams across the business represented by 74% males and 26% females. During 2021, the diversity profile of our workforce continued to improve across our businesses as we hired approximately 21,300 individuals of which 69% were male and 31% were female. For our 2021 U.S.-based hires, 61% were white and 39% were people of color.

RAW MATERIALS AND SUPPLIERS

We depend on suppliers and subcontractors for raw materials, components and subsystems. Our U.S. government customer is a supplier on some of our programs. These supply networks can experience price fluctuations and capacity constraints, which can put pressure on our costs. Effective management and oversight of suppliers and subcontractors is an important element of our successful performance. If our sources of supply are disrupted, particularly in instances where we rely on only one or two sources of supply, our ability to meet our customer commitments could be adversely impacted. We attempt to

mitigate risks with our suppliers by entering into long-term agreements and leveraging company-wide agreements to achieve economies of scale and by negotiating flexible pricing terms in our customer contracts. We have not experienced, and do not foresee, significant difficulties in obtaining the materials, components or supplies necessary for our business operations.

REGULATORY MATTERS

U.S. GOVERNMENT CONTRACTS

U.S. government contracts are subject to procurement laws and regulations. The Federal Acquisition Regulation (FAR) and the Cost Accounting Standards (CAS) govern the majority of our contracts. The FAR mandates uniform policies and procedures for U.S. government acquisitions and purchased services. Also, individual agencies can have acquisition regulations that provide implementing language for the FAR or that supplement the FAR. For example, the DoD implements the FAR through the Defense Federal Acquisition Regulation Supplement (DFARS). For all federal government entities, the FAR regulates the phases of any product or service acquisition, including:

- acquisition planning;
- competition requirements;
- contractor qualifications;
- protection of source selection and supplier information; and
- acquisition procedures.

In addition, the FAR addresses the allowability of our costs, while the CAS addresses the allocation of those costs to contracts. The FAR and CAS subject us to audits and other government reviews covering issues such as cost, performance, internal controls and accounting practices relating to our contracts.

NON-U.S. REGULATORY

Our non-U.S. operations are subject to the applicable government regulations and procurement policies and practices, as well as U.S. policies and regulations. We are also subject to regulations governing investments, exchange controls, repatriation of earnings and import-export control.

BUSINESS JET AIRCRAFT

The Aerospace segment is subject to FAA regulation in the United States and other similar aviation regulatory authorities internationally, including the Civil Aviation Administration of Israel (CAAI), the European Aviation Safety Agency (EASA) and the Civil Aviation Administration of China (CAAC). For an aircraft to be manufactured and sold, the model must receive a type certificate from the appropriate aviation authority, and each aircraft must receive a certificate of airworthiness. Aircraft outfitting and completions also require approval by the appropriate aviation authority, which is often accomplished through a supplemental type certificate. Aviation authorities can require changes to a specific aircraft or model type before granting approval. Maintenance facilities and charter operations must be licensed by aviation authorities as well.

ENVIRONMENTAL

We are subject to a variety of federal, state, local and foreign environmental laws and regulations. These laws and regulations cover the discharge, treatment, storage, disposal, investigation and remediation of materials, substances and wastes identified in the laws and regulations. We are directly or indirectly

involved in environmental investigations or remediation at some of our current and former facilities and at third-party sites that we do not own but where we have been designated a potentially responsible party (PRP) by the U.S. Environmental Protection Agency or a state environmental agency. As a PRP, we are potentially liable to the government or third parties for the cost of remediating contamination. In cases where we have been designated a PRP, we generally seek to mitigate these environmental liabilities through available insurance coverage and by pursuing appropriate cost-recovery actions. In the unlikely event that we are required to fully fund the remediation of a site, the current statutory framework would allow us to pursue contributions from other PRPs. We regularly assess our compliance status and management of environmental matters.

Operating and maintenance costs associated with environmental compliance and management of contaminated sites are a normal, recurring part of our operations. Historically, these costs have not been material. In addition, we could be affected by future laws or regulations imposed in response to concerns over climate change, the timing and effect of which are difficult to assess.

Changes in environmental and climate change laws or regulations, including laws relating to greenhouse gas emissions, could lead to new or additional investment in product designs or facilities and could increase environmental compliance expenditures, including increased energy and raw materials costs. Environmental costs are often recoverable under our contracts with the U.S. government. Based on information currently available and current U.S. government policies relating to cost recovery, we do not expect continued compliance with environmental regulations, including costs associated with changes in environmental and climate change laws or regulations, to have a material impact on our results of operations, financial condition or cash flows. For additional information relating to the impact of environmental matters, see Note M to the Consolidated Financial Statements in Item 8.

AVAILABLE INFORMATION

We file reports and other information with the Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. These reports and information include an annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statements. Free copies of these items are made available on our website (www.gd.com) as soon as practicable. The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information.

In addition to the information contained in this Form 10-K, information about the company can be found on our website and our Investor Relations website (investorrelations.gd.com). Our Investor Relations website contains a significant amount of information about the company, including financial information, our corporate governance principles and practices, and other information for investors. We encourage investors to visit our website, as we frequently update and post new information about our company, and it is possible that this information could be deemed to be material information.

References to our website and the SEC's website in this Form 10-K do not constitute, and should not be viewed as, incorporation by reference of the information contained on, or available through, the websites. The information should not be considered a part of this Form 10-K, unless otherwise expressly incorporated by reference.

ITEM 1A. RISK FACTORS

An investment in our common stock or debt securities is subject to risks and uncertainties. Investors should consider the following factors, in addition to the other information contained in this Annual Report on Form 10-K, before deciding whether to purchase our securities.

Investment risks can be market-wide as well as unique to a specific industry or company. The market risks faced by an investor in our stock are similar to the uncertainties faced by investors in a broad range of industries. There are some risks that apply more specifically to our business.

Our revenue is concentrated with the U.S. government. This customer relationship involves some specific risks. In addition, our sales to non-U.S. customers expose us to different financial and legal risks. Despite the varying nature of our government and commercial operations and the markets they serve, each segment shares some common risks, such as the ongoing development of high-technology products and the price, availability and quality of commodities and subsystems.

Risks Relating to Our Business and Industry

The U.S. government provides a significant portion of our revenue. In 2021, 70% of our consolidated revenue was from the U.S. government. Levels of U.S. defense spending are driven by threats to national security. Competing demands for federal funds can pressure various areas of spending. Decreases in U.S. government defense and other spending or changes in spending allocation or priorities could result in one or more of our programs being reduced, delayed or terminated, which could impact our financial performance.

For additional information relating to U.S. budget matters, see the Business Environment section of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7.

U.S. government contracts are not always fully funded at inception, and any funding is subject to disruption or delay. Our U.S. government revenue is funded by agency budgets that operate on an October-to-September fiscal year. Early each calendar year, the President of the United States presents to the Congress the budget for the upcoming fiscal year. This budget proposes funding levels for every federal agency and is the result of months of policy and program reviews throughout the executive branch. For the remainder of the year, the Appropriations and Authorization Committees of the Congress review the President's budget proposals and establish the funding levels for the upcoming fiscal year. Once these levels are enacted into law, the Executive Office of the President administers the funds to the agencies.

There are two primary risks associated with the U.S. government budget cycle. First, the annual process may be delayed or disrupted. If the annual budget is not approved by the beginning of the government fiscal year, portions of the U.S. government can shut down or operate under a continuing resolution that maintains spending at prior-year levels, which can impact funding for our programs and timing of new awards. Second, the Congress typically appropriates funds on a fiscal-year basis, even though contract performance may extend over many years. Future revenue under existing multi-year contracts is conditioned on the continuing availability of congressional appropriations. Changes in appropriations in subsequent years may impact the funding available for these programs. Delays or changes in funding can impact the timing of available funds or lead to changes in program content.

Our government contracts are subject to termination rights by the customer. U.S. government contracts generally permit the government to terminate a contract, in whole or in part, for convenience. If a contract is terminated for convenience, a contractor usually is entitled to receive payments for its

allowable costs incurred and the proportionate share of fees or earnings for the work performed. The government may also terminate a contract for default in the event of a breach by the contractor. If a contract is terminated for default, the government in most cases pays only for the work it has accepted. Many foreign contracts have similar termination rights by customers. The termination of multiple or large programs could have a material adverse effect on our future revenue and earnings.

Government contractors operate in a highly regulated environment and are subject to audit by the U.S. government. Numerous U.S. government agencies routinely audit and review government contractors. These agencies review a contractor's performance under its contracts and compliance with applicable laws, regulations and standards. The U.S. government also reviews the adequacy of, and compliance with, internal control systems and policies, including the contractor's purchasing, property, estimating, material, earned value management and accounting systems. In some cases, audits may result in delayed payments or contractor costs not being reimbursed or subject to repayment. If an audit or investigation were to result in allegations against a contractor of improper or illegal activities, civil or criminal penalties and administrative sanctions could result, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government. In addition, reputational harm could result if allegations of impropriety were made. In some cases, audits may result in disputes with the respective government agency that can result in negotiated settlements, arbitration or litigation. Moreover, new laws, regulations or standards, or changes to existing ones, can increase our performance and compliance costs and reduce our profitability.

Our Aerospace segment is subject to changing customer demand for business aircraft. The business jet market is driven by the demand for business-aviation products and services by corporate, individual and government customers in the United States and around the world. The Aerospace segment's results also depend on other factors, including general economic conditions, the availability of credit, pricing pressures and trends in capital goods markets. In addition, if customers default on existing contracts and the contracts are not replaced, the segment's anticipated revenue and profitability could be reduced materially.

Earnings and margin depend on our ability to perform on our contracts. When agreeing to contractual terms, our management team makes assumptions and projections about future conditions and events. The accounting for our contracts and programs requires assumptions and estimates about these conditions and events. These projections and estimates assess:

- the productivity and availability of labor;
- the complexity of the work to be performed;
- the cost and availability of materials and components; and
- schedule requirements.

If there is a significant change in one or more of these circumstances, estimates or assumptions, or if the risks under our contracts are not managed adequately, the profitability of contracts could be adversely affected. This could affect earnings and margin materially.

Earnings and margin depend in part on subcontractor and supplier performance. We rely on other companies to provide materials, components and subsystems for our products. Subcontractors also perform some of the services that we provide to our customers. We depend on these subcontractors and suppliers to meet our contractual obligations in full compliance with customer requirements and applicable law. Misconduct by subcontractors, such as a failure to comply with procurement regulations or engaging in unauthorized activities, may harm our future revenue and earnings. We manage our

supplier base carefully to avoid or minimize customer issues. We sometimes rely on only one or two sources of supply that, if disrupted, could have an adverse effect on our ability to meet our customer commitments. Our ability to perform our obligations may be materially adversely affected if one or more of these suppliers is unable to provide the agreed-upon materials, perform the agreed-upon services in a timely and cost-effective manner, or engages in misconduct or other improper activities.

Our future success depends in part on our ability to develop new products and technologies and maintain a qualified workforce to meet the needs of our customers. Many of the products and services we provide involve sophisticated technologies and engineering, with related complex manufacturing and system-integration processes. Our customers' requirements change and evolve regularly. Accordingly, our future performance depends in part on our ability to continue to develop, manufacture and provide innovative products and services and bring those offerings to market quickly at cost-effective prices. Some new products, particularly in our Aerospace segment, must meet extensive and time-consuming regulatory requirements that are often outside our control and may result in unanticipated delays. Additionally, due to the highly specialized nature of our business, we must hire and retain the skilled and qualified personnel necessary to perform the services required by our customers. To the extent that the demand for skilled personnel exceeds supply, we could experience higher labor, recruiting or training costs in order to attract and retain such employees. If we were unable to develop new products that meet customers' changing needs and satisfy regulatory requirements in a timely manner or successfully attract and retain qualified personnel, our future revenue and earnings may be materially adversely affected.

Risks Relating to Our International Operations

Sales and operations outside the United States are subject to different risks that may be associated with doing business in foreign countries. In some countries there is increased chance for economic, legal or political changes, and procurement procedures may be less robust or mature, which may complicate the contracting process. Our non-U.S. operations may be sensitive to and impacted by changes in a foreign government's national policies and priorities, political leadership and budgets, which may be influenced by changes in threat environments, geopolitical uncertainties, volatility in economic conditions and other economic and political factors. Changes and developments in any of these matters or factors may occur suddenly and could impact funding for programs or delay purchasing decisions or customer payments. Non-U.S. transactions can involve increased financial and legal risks arising from foreign exchange rate variability and differing legal systems. Our non-U.S. operations are subject to U.S. and foreign laws and regulations, including laws and regulations relating to import-export controls, technology transfers, the Foreign Corrupt Practices Act (FCPA) and other anti-corruption laws, and the International Traffic in Arms Regulations (ITAR). An unfavorable event or trend in any one or more of these factors or a failure to comply with U.S. or foreign laws could result in administrative, civil or criminal liabilities, including suspension or debarment from government contracts or suspension of our export privileges, and could materially adversely affect revenue and earnings associated with our non-U.S. operations.

In addition, some non-U.S. government customers require contractors to enter into letters of credit, performance or surety bonds, bank guarantees and other similar financial arrangements. We may also be required to agree to specific in-country purchases, manufacturing agreements or financial support arrangements, known as offsets, that require us to satisfy investment or other requirements or face penalties. Offset requirements may extend over several years and could require us to team with local companies to fulfill these requirements. If we do not satisfy these financial or offset requirements, our future revenue and earnings may be materially adversely affected.

Risks Relating to Our Acquisitions and Similar Investment Activities

We have made and expect to continue to make investments, including acquisitions and joint ventures, that involve risks and uncertainties. When evaluating potential acquisitions and joint ventures, we make judgments regarding the value of business opportunities, technologies and other assets, and the risks and costs of potential liabilities based on information available to us at the time of the transaction. Whether we realize the anticipated benefits from these transactions depends on multiple factors, including our integration of the businesses involved; the performance of the underlying products, capabilities, or technologies; market conditions following the acquisition; and acquired liabilities, including some that may not have been identified prior to the acquisition. These factors could materially adversely affect our financial results.

Changes in business conditions may cause goodwill and other intangible assets to become impaired. Goodwill represents the purchase price paid in excess of the fair value of net tangible and intangible assets acquired in a business combination. Goodwill is not amortized and remains on our balance sheet indefinitely unless there is an impairment or a sale of a portion of the business. We review goodwill for impairment annually at each of our reporting units or when circumstances indicate that the likelihood of an impairment is greater than 50%. Such circumstances include a significant adverse change in the business climate for one of our reporting units or a decision to dispose of a reporting unit or a significant portion of a reporting unit. We face some uncertainty in our business environment due to a variety of challenges, including changes in government spending. We may experience unforeseen circumstances that adversely affect the value of our goodwill or intangible assets and trigger an evaluation of the amount of the recorded goodwill and intangible assets. Future write-offs of goodwill or other intangible assets as a result of an impairment in the business could materially adversely affect our results of operations and financial condition.

Other Business and Operational Risks

Our business could be negatively impacted by cybersecurity events and other disruptions. We face various cybersecurity threats, including threats to our IT infrastructure and attempts to gain unauthorized access to our proprietary or classified information, denial-of-service attacks, as well as threats to the physical security of our facilities and employees, and threats from terrorist acts. We also design and manage IT systems and products that contain IT systems for various customers. We generally face the same security threats for these systems as for our own internal systems. In addition, we face cyber threats from entities that may seek to target us through our customers, suppliers, subcontractors and other third parties with whom we do business. Accordingly, we maintain information security staff, policies and procedures for managing risk to our information systems; we conduct employee training on cybersecurity to mitigate persistent and continuously evolving cybersecurity threats; and we report cybersecurity events or losses of customer data to affected customers and applicable regulatory authorities. However, there can be no assurance that any such actions, or the safeguards put in place by our customers, suppliers, subcontractors and other parties on which we rely, will be sufficient to detect, prevent and mitigate cybersecurity breaches or disruptions, or the unauthorized release of sensitive information or corruption of data.

We have experienced cybersecurity events and disruptions such as viruses and attacks targeting our IT systems. Such prior events have not had a material impact on our financial condition, results of operations or liquidity. However, future threats could, among other things, cause harm to our business and our reputation; disrupt our operations; expose us to potential liability, regulatory actions and loss of business; challenge our eligibility for future work on sensitive or classified systems for government customers; and impact our results of operations materially. Due to the evolving nature of these security

threats, the potential impact of any future incident cannot be predicted. Our insurance coverage may not be adequate to cover all the costs related to cybersecurity attacks or disruptions resulting from such events.

Our business may continue to be negatively impacted by the coronavirus (COVID-19) pandemic or other similar outbreaks. The COVID-19 pandemic has had, and could continue to have, a negative effect on our business, results of operations and financial condition. Effects include disruptions or restrictions on our employees' ability to work effectively, temporary closures of our facilities or the facilities of our customers, and supply-chain disruptions, which could affect our ability to perform on our contracts. In addition, the U.S. government's federal contractor vaccine mandate could adversely affect our ability, and our subcontractors' ability, to hire and retain highly skilled employees to work on U.S. government programs. Any cost increases that result from these effects may not be fully recoverable on our contracts or adequately covered by insurance, which could impact our profitability. In addition, the COVID-19 pandemic has resulted in a widespread health crisis that is adversely affecting the economies and financial markets of many countries, which could result in a prolonged economic downturn that may negatively affect demand for our products and services. The imposition of quarantine and travel restrictions has negatively affected and, if reimposed, may continue to negatively affect portions of our business, particularly our Aerospace and Technologies segments. The extent to which COVID-19 continues to impact our business, results of operations and financial condition is highly uncertain and will depend on future developments. Such developments may include the geographic spread and duration of the virus, including the emergence of new variants, the severity of the disease, vaccination rates and the actions that may be taken by various governmental authorities and other third parties in response to the pandemic. Other outbreaks of contagious diseases or other adverse public health developments in countries where we operate or our customers are located could similarly affect our business in the future.

Increased regulation related to global climate change could negatively affect our business. Increased public awareness and concern regarding global climate change may result in state, federal or international requirements to reduce or mitigate global warming, such as the imposition of carbon pricing mechanisms or stricter limits on greenhouse gas emissions. If environmental or climate-change laws or regulations are adopted or changed that impose significant new costs, operational restrictions or compliance requirements upon our business or our products, they could increase our capital expenditures, reduce our margins and adversely affect our financial position.

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements that are based on management's expectations, estimates, projections and assumptions. Words such as "expects," "anticipates," "plans," "believes," "scheduled," "outlook," "estimates," "should" and variations of these words and similar expressions are intended to identify forward-looking statements. Examples include projections of revenue, earnings, operating margin, segment performance, cash flows, contract awards, aircraft production, deliveries and backlog. In making these statements, we rely on assumptions and analyses based on our experience and perception of historical trends, current conditions and expected future developments as well as other factors we consider appropriate under the circumstances. We believe our estimates and judgments are reasonable based on information available to us at the time. Forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. These statements are not guarantees of future performance and involve risks and uncertainties that are difficult to predict. Therefore, actual future results and trends

may differ materially from what is forecast in forward-looking statements due to a variety of factors, including, without limitation, the risk factors discussed in this Form 10-K.

All forward-looking statements speak only as of the date of this report or, in the case of any document incorporated by reference, the date of that document. All subsequent written and oral forward-looking statements attributable to General Dynamics or any person acting on our behalf are qualified by the cautionary statements in this section. We do not undertake any obligation to update or publicly release any revisions to forward-looking statements to reflect events, circumstances or changes in expectations after the date of this report. These factors may be revised or supplemented in subsequent reports on SEC Forms 10-Q and 8-K.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We operate in a number of offices, manufacturing plants, laboratories, warehouses and other facilities in the United States and abroad. We believe our facilities are adequate for our present needs and, given planned improvements and construction, expect them to remain adequate for the foreseeable future.

On December 31, 2021, our segments had material operations at the following locations:

- **Aerospace** – Van Nuys, California; West Palm Beach, Florida; Brunswick and Savannah, Georgia; Cahokia, Illinois; Westfield, Massachusetts; Teterboro, New Jersey; New York, New York; Tulsa, Oklahoma; Dallas, Texas; Dulles, Virginia; Appleton, Wisconsin; Sydney, Australia; Beijing, China; Mexicali, Mexico; Singapore; Basel, Switzerland; Farnborough, United Kingdom.
- **Marine Systems** – San Diego, California; Groton and New London, Connecticut; Jacksonville, Florida; Honolulu, Hawaii; Bath and Brunswick, Maine; Middletown and North Kingstown, Rhode Island; Norfolk and Portsmouth, Virginia; Bremerton, Washington; Mexicali, Mexico.
- **Combat Systems** – Anniston, Alabama; East Camden, Arkansas; Healdsburg, California; Crawfordsville, St. Petersburg and Tallahassee, Florida; Marion, Illinois; Saco, Maine; Sterling Heights, Michigan; Lima, Ohio; Eynon and Scranton, Pennsylvania; Garland, Texas; Joint Base Lewis-McChord, Washington; Vienna, Austria; La Gardeur, London and Valleyfield, Canada; Kaiserslautern, Germany; Madrid, Sevilla and Trubia, Spain; Kreuzlingen and Tägerwilen, Switzerland; Merthyr Tydfil, United Kingdom.
- **Technologies** – Daleville, Alabama; Scottsdale, Arizona; Orlando, Florida; Bossier City, Louisiana; Annapolis Junction, Maryland; Dedham, Pittsfield and Taunton, Massachusetts; Bloomington, Minnesota; Rensselaer, New York; Greensboro, North Carolina; Chesapeake and Marion, Virginia; multiple locations in Northern Virginia; Ottawa, Canada; Oakdale and St. Leonards, United Kingdom.

A summary of floor space by segment on December 31, 2021, follows:

(Square feet in millions)	Company-owned Facilities	Leased Facilities	Government-owned Facilities	Total
Aerospace	6.0	9.3	0.5	15.8
Marine Systems	8.4	4.5	—	12.9
Combat Systems	5.8	4.0	5.0	14.8
Technologies	3.1	7.4	0.9	11.4
Total square feet	23.3	25.2	6.4	54.9

ITEM 3. LEGAL PROCEEDINGS

For information relating to legal proceedings, see Note M to the Consolidated Financial Statements in Item 8.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

All of our executive officers are appointed annually. None of our executive officers were selected pursuant to any arrangement or understanding between the officer and any other person. The name, age, offices and positions of our executives held for at least the past five years as of February 9, 2022, were as follows (references are to positions with General Dynamics Corporation, unless otherwise noted):

Name, Position and Office	Age
Jason W. Aiken - Senior Vice President and Chief Financial Officer since January 2014; Vice President of the company and Chief Financial Officer of Gulfstream Aerospace Corporation, September 2011 - December 2013; Vice President and Controller, April 2010 - August 2011; Staff Vice President, Accounting, July 2006 - March 2010	49
Christopher J. Brady - Vice President of the company and President of General Dynamics Mission Systems since January 2019; Vice President, Engineering of General Dynamics Mission Systems, January 2015 - December 2018; Vice President, Engineering of General Dynamics C4 Systems, May 2013 - December 2014; Vice President, Assured Communications Systems of General Dynamics C4 Systems, August 2004 - May 2013	59
Mark L. Burns - Vice President of the company and President of Gulfstream Aerospace Corporation since July 2015; Vice President of the company since February 2014; President, Product Support of Gulfstream Aerospace Corporation, June 2008 - June 2015	62
Danny Deep - Vice President of the company and President of General Dynamics Land Systems since April 2020; Chief Operating Officer of General Dynamics Land Systems, September 2018 - April 2020; Vice President of General Dynamics Land Systems – Canada, January 2011 - September 2018	52
Gregory S. Gallopoulos - Senior Vice President, General Counsel and Secretary since January 2010; Vice President and Deputy General Counsel, July 2008 - January 2010; Managing Partner of Jenner & Block LLP, January 2005 - June 2008	62

M. Amy Gilliland - Senior Vice President of the company since April 2015; President of General Dynamics Information Technology since September 2017; Deputy for Operations of General Dynamics Information Technology, April 2017 - September 2017; Senior Vice President, Human Resources and Administration, April 2015 - March 2017; Vice President, Human Resources, February 2014 - March 2015; Staff Vice President, Strategic Planning, January 2013 - February 2014; Staff Vice President, Investor Relations, June 2008 - January 2013	47
Kevin M. Graney - Vice President of the company and President of Electric Boat Corporation since October 2019; Vice President of the company and President of NASSCO, January 2017 - October 2019; Vice President and General Manager of NASSCO, November 2013 - January 2017	57
Kimberly A. Kuryea - Senior Vice President, Human Resources and Administration since April 2017; Vice President and Controller, September 2011 - March 2017; Chief Financial Officer of General Dynamics Advanced Information Systems, November 2007 - August 2011; Staff Vice President, Internal Audit, March 2004 - October 2007	54
Christopher Marzilli - Executive Vice President, Technologies since December 2020; Executive Vice President, Information Technology and Mission Systems, January 2019 - December 2020; Vice President of the company and President of General Dynamics Mission Systems, January 2015 - December 2018; Vice President of the company and President of General Dynamics C4 Systems, January 2006 - December 2014; Senior Vice President and Deputy General Manager of General Dynamics C4 Systems, November 2003 - January 2006	62
William A. Moss - Vice President and Controller since April 2017; Staff Vice President, Internal Audit, May 2015 - March 2017; Staff Vice President, Accounting, August 2010 - May 2015	58
Phebe N. Novakovic - Chairman and Chief Executive Officer since January 2013; President and Chief Operating Officer, May 2012 - December 2012; Executive Vice President, Marine Systems, May 2010 - May 2012; Senior Vice President, Planning and Development, July 2005 - May 2010; Vice President, Strategic Planning, October 2002 - July 2005	64
Mark C. Roualet - Executive Vice President, Combat Systems, since March 2013; Vice President of the company and President of General Dynamics Land Systems, October 2008 - March 2013; Senior Vice President and Chief Operating Officer of General Dynamics Land Systems, July 2007 - October 2008	63
Robert E. Smith - Executive Vice President, Marine Systems, since July 2019; Vice President of the company and President of Jet Aviation, January 2014 - July 2019; Vice President and Chief Financial Officer of Jet Aviation, July 2012 - January 2014	54

PART II

ITEM 5. MARKET FOR THE COMPANY'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed on the New York Stock Exchange under the trading symbol "GD."

On January 30, 2022, there were approximately 10,000 holders of record of our common stock.

For information regarding securities authorized for issuance under our equity compensation plans, see Note R to the Consolidated Financial Statements contained in Item 8.

We did not make any unregistered sales of equity securities in 2021.

The following table provides information about our fourth-quarter purchases of equity securities that are registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended:

Period	Total Number of Shares	Average Price per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Maximum Number of Shares That May Yet Be Purchased Under the Program
<i>Shares Purchased Pursuant to Share Buyback Program</i>				
10/4/21-10/31/21	24,637	\$ 202.94	24,637	13,809,785
11/1/21-11/28/21	449,553	200.19	449,553	13,360,232
11/29/21-12/31/21	1,305,295	201.90	1,305,295	12,054,937
<i>Shares Delivered or Withheld Pursuant to Restricted Stock Vesting*</i>				
10/4/21-10/31/21	—	—	—	—
11/1/21-11/28/21	—	—	—	—
11/29/21-12/31/21	378	196.31	—	—
	<u>1,779,863</u>	\$ 201.48	—	—

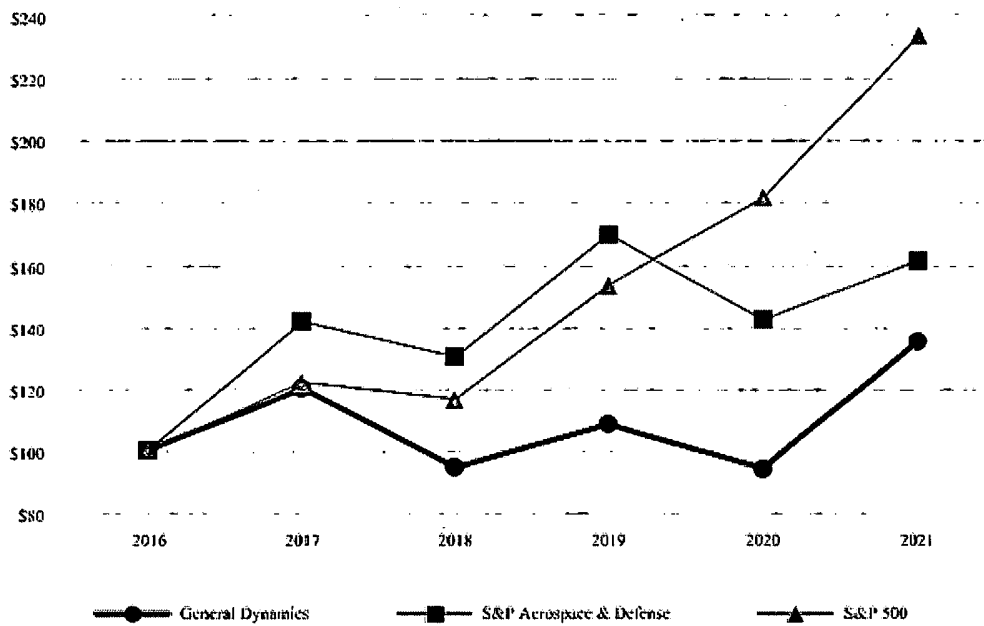
* Represents shares withheld by, or delivered to, us pursuant to provisions in agreements with recipients of restricted stock granted under our equity compensation plans that allow us to withhold, or the recipient to deliver to us, the number of shares with a fair value equal to the statutory tax withholding due upon vesting of the restricted shares.

On June 2, 2021, the board of directors authorized management to repurchase up to 10 million additional shares of the company's outstanding common stock on the open market. We repurchased 1.8 million shares in the fourth quarter of 2021. On December 31, 2021, 12.1 million shares remained authorized by our board of directors for repurchase.

For additional information relating to our purchases of common stock during the past three years, see Note N to the Consolidated Financial Statements in Item 8.

The following performance graph compares the cumulative total return to shareholders on our common stock, assuming reinvestment of dividends, with similar returns for the Standard & Poor's 500 Index and the Standard & Poor's Aerospace & Defense Index, both of which include General Dynamics.

Cumulative Total Return
Based on Investments of \$100 Beginning December 31, 2016
(Assumes Reinvestment of Dividends)



ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

(Dollars in millions, except per-share amounts or unless otherwise noted)

For an overview of our operating segments, including a discussion of our major products and services, see the Business discussion contained in Item 1. The following discussion of our financial condition and results of operations for 2021 compared with 2020 should be read in conjunction with our Consolidated Financial Statements included in Item 8, while a discussion of 2020 compared with 2019 can be found in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2020.

BUSINESS ENVIRONMENT

GLOBAL PANDEMIC UPDATE

The coronavirus (COVID-19) pandemic has caused significant disruptions to national and global economies and government activities since March 2020. During this time, we have continued to conduct our operations while responding to the pandemic with actions to mitigate adverse consequences to our employees, business, supply chain and customers. Consistent with our prioritization of the health and safety of our employees, we continue to encourage and promote vaccination across the company. Any long-term impact to our business is currently unknown due to the uncertainty around the pandemic's duration and its broader impact. For additional information, see the Risk Factors in Part I, Item 1A.

The United States and other governments have taken several steps to respond to the pandemic. On September 9, 2021, the president signed Executive Order 14042, initiating a process whereby covered federal contractors and subcontractors must implement federally required vaccine mandates. A clause implementing the federal contractor vaccine mandate has been incorporated into a number of our federal contracts. In light of certain court orders, however, the Office of Management and Budget has stated that the U.S. government will not take action to enforce this clause until further notice. If ultimately upheld, this federal contract requirement may affect various business units differently. We are working closely with our customer to ensure that we minimize disruptions and potential employee attrition in the event that applicable contract modifications are enforceable and as additional modifications are received that could trigger implementation. To the extent that we or our subcontractors experience employee attrition and/or work stoppages, our costs could increase, schedules could slip on affected programs and our ability to perform under some contracts could be negatively affected, particularly in those instances where we cannot receive cost reimbursement.

Our Aerospace segment's operating results have experienced the most significant impact from the pandemic. New aircraft deliveries in 2021 reflected our decision in 2020 to reduce production rates to accommodate supply chain challenges and reduced demand due to the pandemic. However, aircraft demand has been strong in 2021, with orders reaching their highest level in over a decade. Similarly, demand for aircraft services has improved as air travel has increased, but remains below pre-pandemic levels in some regions of the world. Our U.S. government business continues to experience some disruption from the COVID-19 pandemic, particularly in our Technologies segment. The Review of Operating Segments includes additional information on the impacts of the pandemic for the affected segments.

OUR MARKETS

With approximately 70% of our revenue from the U.S. government, government spending levels — particularly defense spending — influence our financial performance. The Congress has not yet passed a defense appropriations bill for the government’s fiscal year (FY) 2022 despite the fact that the new year began on October 1, 2021. However, on December 3, 2021, a continuing resolution (CR) was signed into law, providing funding for federal agencies through February 18, 2022. When the government operates under a CR, all programs of record are funded at the prior year’s appropriated levels, and the Department of Defense (DoD) is prohibited from starting new programs. While this could result in delayed revenue growth as programs that were expected to have increased funding levels continue to operate at the prior-year levels until the current-year appropriations bill is passed, we do not anticipate that the current CR, or any subsequent extensions, will have a material impact on our results of operations, financial condition or cash flows.

The long-term outlook for our U.S. defense business is influenced by the U.S. military’s funding priorities, the diversity of our programs and customers, our insight into customer requirements stemming from our incumbency on core programs, our ability to evolve our products to address a fast-changing threat environment and our proven track record of successful contract execution.

International demand for military equipment and technologies presents opportunities for our non-U.S. operations and exports from our North American businesses. While the revenue potential can be significant, there are risks to doing business in foreign countries, including changing budget priorities and overall spending pressures unique to each country.

In our Aerospace segment, we expect our investment in the development of new aircraft products and technologies to support the segment’s long-term growth. Similarly, we believe the aircraft services business will be a source of steady revenue growth as the global business jet fleet continues to grow and the impact of the pandemic subsides.

OTHER LEGISLATIVE ACTIVITY

In November 2021, the U.S. House of Representatives passed the Build Back Better Act (BBBA), which provides for changes to U.S. corporate income taxation. BBBA would delay until 2026 the requirement to capitalize and amortize over five years certain research and experimental expenditures beginning in 2022 that were previously deductible immediately.

We cannot determine whether some or all of the proposals that were included in BBBA will be enacted into law or what, if any, change may be made to such proposals prior to enactment. If the requirement to capitalize and amortize research and experimental expenditures were delayed via passage of BBBA or other legislation, it would delay the temporary increase in our tax payments otherwise beginning in 2022 that would be caused by the capitalization requirement.

RESULTS OF OPERATIONS

INTRODUCTION

The following paragraphs explain how we recognize revenue and operating costs in our operating segments and the terminology we use to describe our operating results.

In the Aerospace segment, we record revenue on contracts for new aircraft when the customer obtains control of the asset, which is generally upon delivery and acceptance by the customer of the fully

outfitted aircraft. Revenue associated with the segment's custom completions of narrow-body and wide-body aircraft and the segment's services businesses is recognized as work progresses or upon delivery of services. Fluctuations in revenue from period to period result from the number and mix of new aircraft deliveries, progress on aircraft completions, and the level and type of aircraft services performed during the period.

The majority of the Aerospace segment's operating costs relates to new aircraft production on firm orders and consists of labor, material, subcontractor and overhead costs. The costs are accumulated in production lots, recorded in inventory and recognized as operating costs at aircraft delivery based on the estimated average unit cost in a production lot. While changes in the estimated average unit cost for a production lot impact the level of operating costs, the amount of operating costs reported in a given period is based largely on the number and type of aircraft delivered. Operating costs in the Aerospace segment's completions and services businesses are recognized generally as incurred.

For new aircraft, operating earnings and margin are a function of the prices of our aircraft, our operational efficiency in manufacturing and outfitting the aircraft, and the mix of ultra-large-cabin, large-cabin and mid-cabin aircraft deliveries. Aircraft mix can also refer to the stage of program maturity for our aircraft models. A new aircraft model typically has lower margins in its initial production lots, and then margins generally increase as we realize efficiencies in the production process. Additional factors affecting the segment's earnings and margin include the volume, mix and profitability of completions and services work performed, the market for pre-owned aircraft, and the level of general and administrative (G&A) and net research and development (R&D) costs incurred by the segment.

In the defense segments, revenue on long-term government contracts is recognized generally over time as the work progresses, either as products are produced or as services are rendered. Typically, revenue is recognized over time using costs incurred to date relative to total estimated costs at completion to measure progress toward satisfying our performance obligations. Incurred cost represents work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. Contract costs include labor, material, overhead and, when appropriate, G&A expenses. Variances in costs recognized from period to period reflect primarily increases and decreases in production or activity levels on individual contracts. Because costs are used as a measure of progress, year-over-year variances in cost result in corresponding variances in revenue, which we generally refer to as volume.

Operating earnings and margin in the defense segments are driven by changes in volume, performance or contract mix. Performance refers to changes in profitability based on adjustments to estimates at completion on individual contracts. These adjustments result from increases or decreases to the estimated value of the contract, the estimated costs to complete the contract or both. Therefore, changes in costs incurred in the period compared with prior periods do not necessarily impact profitability. It is only when total estimated costs at completion on a given contract change without a corresponding change in the contract value (or vice versa) that the profitability of that contract may be impacted. Contract mix refers to changes in the volume of higher- versus lower-margin work. Higher or lower margins can result from a number of factors, including contract type (e.g., fixed-price/cost-reimbursable) and type of work (e.g., development/production). Contract mix can also refer to the stage of program maturity for our long-term production contracts. New long-term production contracts typically have lower margins initially, and then margins generally increase as we achieve learning curve improvements or realize other cost reductions.

CONSOLIDATED OVERVIEW

2021 IN REVIEW

- Strong operating performance:
 - Revenue of \$38.5 billion, an increase of 1.4% from 2020.
 - Operating earnings of \$4.2 billion with sequential growth throughout the year.
 - Diluted earnings per share of \$11.55, up 5% from 2020.
 - Cash provided by operating activities of \$4.3 billion, or 131% percent of net earnings.
- Backlog of \$87.6 billion, supporting our long-term growth expectations:
 - Significant Gulfstream aircraft order activity, including orders for the recently announced G400 and G800 aircraft.

Year Ended December 31	2021	2020	Variance	
Revenue	\$ 38,469	\$ 37,925	\$ 544	1.4%
Operating costs and expenses	(34,306)	(33,792)	(514)	1.5%
Operating earnings	4,163	4,133	30	0.7%
Operating margin	10.8%	10.9%		

Our consolidated revenue increased in 2021 driven by growth in U.S. Navy ship construction in our Marine Systems segment. Higher aircraft services activity was offset by a planned reduction in aircraft deliveries in our Aerospace segment. Lower CSISR solutions revenue was offset partially by increased IT services activity in our Technologies segment and international vehicle revenue in our Combat Systems segment. Operating margin remained steady in 2021.

REVIEW OF OPERATING SEGMENTS

Following is a discussion of operating results and outlook for each of our operating segments. For the Aerospace segment, results are analyzed by specific types of products and services, consistent with how the segment is managed. For the defense segments, the discussion is based on markets and the lines of products and services offered with a supplemental discussion of specific contracts and programs when significant to the results. Additional information regarding our segments can be found in Note O to the Consolidated Financial Statements in Item 8.

AEROSPACE

Year Ended December 31	2021	2020	Variance	
Revenue	\$ 8,135	\$ 8,075	\$ 60	0.7 %
Operating earnings	1,031	1,083	(52)	(4.8)%
Operating margin	12.7%	13.4%		
Gulfstream aircraft deliveries (in units)	119	127	(8)	(6.3)%

Operating Results

The increase in the Aerospace segment's revenue in 2021 consisted of the following:

Aircraft services	\$	311
Aircraft manufacturing		(251)
Total increase	\$	60

Aircraft services revenue was higher in 2021 due to increased air travel driving additional demand for maintenance work and activity at our fixed-base operator (FBO) facilities. Aircraft manufacturing revenue decreased in 2021 due to fewer aircraft deliveries, reflecting the full impact of our decision in 2020 to reduce aircraft production rates in response to the COVID-19 pandemic.

The change in the segment's operating earnings in 2021 consisted of the following:

Aircraft manufacturing	\$	(160)
Aircraft services		122
Impact of 2020 restructuring charge		59
G&A/other expenses		(73)
Total decrease	\$	(52)

Aircraft manufacturing operating earnings were down in 2021 due to the planned reduced aircraft production and delivery rates and mark-to-market adjustments related to G500 test aircraft. In 2021, aircraft manufacturing operating earnings were also impacted negatively by the settlement of claims with a supplier related to the assignment of warranties following the end of G550 production.

These decreases were offset partially by increased aircraft services operating earnings due to higher volume and a favorable mix of aircraft services. The operating earnings variance also reflects restructuring actions taken in 2020 to adjust the workforce size to the revised production levels.

Operating earnings in 2021 reflected higher G&A/other expenses due primarily to increased R&D expenses associated with ongoing product development efforts, including flight test activities for the G700, which is scheduled to enter service in the fourth quarter of 2022. In total, the Aerospace segment's operating margin decreased 70 basis points in 2021 to 12.7%.

2022 Outlook

We expect the Aerospace segment's 2022 revenue to increase to approximately \$8.4 billion due to increased new aircraft deliveries with operating margin of approximately 12.8%. We expect aircraft deliveries to continue to increase in 2023 and 2024, resulting in additional revenue growth of \$2 billion in 2023 and \$1.6 billion in 2024 and operating margin expansion of 200 basis points and 100 basis points, respectively.

MARINE SYSTEMS

Year Ended December 31	2021	2020	Variance	
Revenue	\$ 10,526	\$ 9,979	\$ 547	5.5%
Operating earnings	874	854	20	2.3%
Operating margin	8.3%	8.6%		

Operating Results

The increase in the Marine Systems segment's revenue in 2021 consisted of the following:

U.S. Navy ship construction	\$	716
Commercial ship construction		(89)
U.S. Navy ship engineering, repair and other services		(80)
Total increase	\$	547

Revenue from U.S. Navy ship construction was up across our shipyards in 2021 due to increased volume on the Columbia-class submarine program, the John Lewis-class (T-AO-205) fleet replenishment oiler program and the Arleigh Burke-class (DDG-51) destroyer program. These increases were offset partially by delivery of our last commercial containership in backlog in 2020 and lower volume on the Columbia-class design contract. Overall, the Marine Systems segment's operating margin decreased 30 basis points in 2021, reflecting the shift in mix to early work on new submarine programs with typical lower initial profit rates.

2022 Outlook

We expect the Marine Systems segment's 2022 revenue to be approximately \$10.8 billion. Operating margin is expected to be approximately 8.6% as each shipyard continues to come down the learning curve on their major construction programs.

COMBAT SYSTEMS

Year Ended December 31	2021	2020	Variance	
Revenue	\$ 7,351	\$ 7,223	\$ 128	1.8%
Operating earnings	1,067	1,041	26	2.5%
Operating margin	14.5%	14.4%		

Operating Results

The increase in the Combat Systems segment's revenue in 2021 consisted of the following:

International military vehicles	\$	100
Weapons systems and munitions		15
U.S. military vehicles		13
Total increase	\$	128

Revenue was up in the Combat Systems segment in 2021 due to higher volume on international wheeled vehicle programs, including contracts to produce armored combat support vehicles (ACSVs) and light armored vehicles (LAVs) for the Canadian government and a variety of wheeled and tactical vehicles for a number of European customers. Volume was also up on U.S. Stryker wheeled combat vehicles, particularly in support of the maneuver short-range air defense (M-SHORAD) variant. The Combat Systems segment's operating margin increased 10 basis points compared with 2020, driven by favorable contract mix and strong operating performance.

2022 Outlook

We expect the Combat Systems segment's 2022 revenue to be between \$7.15 and \$7.25 billion with operating margin of approximately 14.5%.

TECHNOLOGIES

Year Ended December 31	2021	2020	Variance	
Revenue	\$ 12,457	\$ 12,648	\$ (191)	(1.5)%
Operating earnings	1,275	1,211	64	5.3 %
Operating margin	10.2%	9.6%		

Operating Results

The change in the Technologies segment's revenue in 2021 consisted of the following:

C5ISR* solutions	\$ (368)
IT services	177
Total decrease	\$ (191)

* Command, control, communications, computers, cyber, intelligence, surveillance and reconnaissance

C5ISR solutions revenue decreased due to timing on several international programs, and supply chain shortages and impacts to U.S. government acquisition cycles resulting from the COVID-19 pandemic. The decrease in C5ISR solutions revenue was also due to approximately \$115 of revenue in 2020 from a satellite communications business that was sold in the second quarter of that year. These decreases were offset partially by increased IT services revenue due to the ramp up of several new programs and higher volume on existing programs due to the reopening of, and increased access to, customer sites following limitations imposed in 2020 due to the pandemic.

The Technologies segment's operating margin increased 60 basis points compared with 2020 due to favorable contract mix and reduced COVID-related impacts in our IT services business, particularly customer reimbursement of idle workforce cost at zero fee in 2020 and early 2021. Additionally, operating results in 2020 included an approximate \$40 loss on a contract with a non-U.S. customer from schedule delays caused by COVID-related travel restrictions, offset partially by a gain on the sale of the satellite communications business.

2022 Outlook

We expect the Technologies segment's 2022 revenue to be between \$12.8 and \$13 billion with operating margin of around 10%.

CORPORATE

Corporate operating results totaled \$84 in 2021 and \$56 in 2020 and consisted primarily of equity-based compensation expense. Corporate operating costs are expected to be approximately \$110 in 2022, driven by accelerated recognition of stock option expense.

OTHER INFORMATION

PRODUCT AND SERVICE REVENUE AND OPERATING COSTS

Year Ended December 31	2021	2020	Variance	
Revenue:				
Products	\$ 22,428	\$ 22,188	\$ 240	1.1%
Services	16,041	15,737	304	1.9%
Operating Costs:				
Products	\$ (18,524)	\$ (18,192)	\$ (332)	1.8%
Services	(13,537)	(13,408)	(129)	1.0%

The increase in product revenue in 2021 consisted of the following:

Ship construction	\$ 627
Aircraft manufacturing	(251)
C5ISR solutions divestiture in 2020	(115)
Other, net	(21)
Total increase	\$ 240

Ship construction revenue increased driven by higher U.S. Navy ship construction volume across our shipyards. This increase was offset partially by lower aircraft manufacturing revenue due to fewer aircraft deliveries and revenue in 2020 from a satellite communications business that was sold in the second quarter of that year. In 2021, the primary drivers of the changes in product operating costs were the changes in volume described above.

The increase in service revenue in 2021 consisted of the following:

Aircraft services	\$ 311
IT services	177
Other, net	(184)
Total increase	\$ 304

Services revenue increased due to higher aircraft services revenue driven by additional maintenance work and FBO activity, and the ramp up of several new IT services programs and higher volume on existing programs. In 2021, the primary drivers of the changes in service operating costs were the changes in volume described above.

G&A EXPENSES

As a percentage of revenue, G&A expenses were 5.8% in 2021 and 2020. We expect G&A expenses as a percentage of revenue in 2022 to be generally consistent with 2021.

OTHER, NET

Net other income was \$134 in 2021 and \$82 in 2020 and represents primarily the non-service components of pension and other post-retirement benefits. In 2022, we expect net other income to be approximately \$170, reflecting continued growth in income from the non-service components of pension and other post-retirement benefits.

INTEREST, NET

Net interest expense was \$424 in 2021 and \$477 in 2020. See Note K to the Consolidated Financial Statements in Item 8 for additional information regarding our debt obligations, including interest rates. We expect 2022 net interest expense to be approximately \$380, reflecting repayment of our scheduled debt maturities in 2021.

PROVISION FOR INCOME TAX, NET

Our effective tax rate was 15.9% in 2021 and 15.3% in 2020. For further discussion, including a reconciliation of our effective tax rate from the statutory federal rate, see Note D to the Consolidated Financial Statements in Item 8. For 2022, we anticipate a full-year effective tax rate of approximately 16%.

BACKLOG AND ESTIMATED POTENTIAL CONTRACT VALUE

Our total backlog, including funded and unfunded portions, was \$87.6 billion on December 31, 2021. Our total backlog is equal to our remaining performance obligations under contracts with customers as discussed in Note B to the Consolidated Financial Statements in Item 8. Our total estimated contract value, which combines total backlog with estimated potential contract value, was \$127.5 billion on December 31, 2021.

The following table details the backlog and estimated potential contract value of each segment at the end of 2021 and 2020:

	Funded	Unfunded	Total Backlog	Estimated Potential Contract Value	Total Estimated Contract Value
December 31, 2021					
Aerospace	\$ 15,878	\$ 415	\$ 16,293	\$ 1,657	\$ 17,950
Marine Systems	23,678	21,177	44,855	4,271	49,126
Combat Systems	12,584	509	13,093	6,936	20,029
Technologies	9,005	4,348	13,353	26,997	40,350
Total	\$ 61,145	\$ 26,449	\$ 87,594	\$ 39,861	\$ 127,455
December 31, 2020					
Aerospace	\$ 11,308	\$ 318	\$ 11,626	\$ 2,800	\$ 14,426
Marine Systems	23,646	26,336	49,982	4,876	54,858
Combat Systems	14,341	226	14,567	9,774	24,341
Technologies	9,488	3,826	13,314	27,727	41,041
Total	\$ 58,783	\$ 30,706	\$ 89,489	\$ 45,177	\$ 134,666

For additional information about our major products and services in backlog see the Business discussion contained in Item 1.

AEROSPACE

Aerospace funded backlog represents new aircraft and custom completion orders for which we have definitive purchase contracts and deposits from customers. Unfunded backlog consists of agreements to

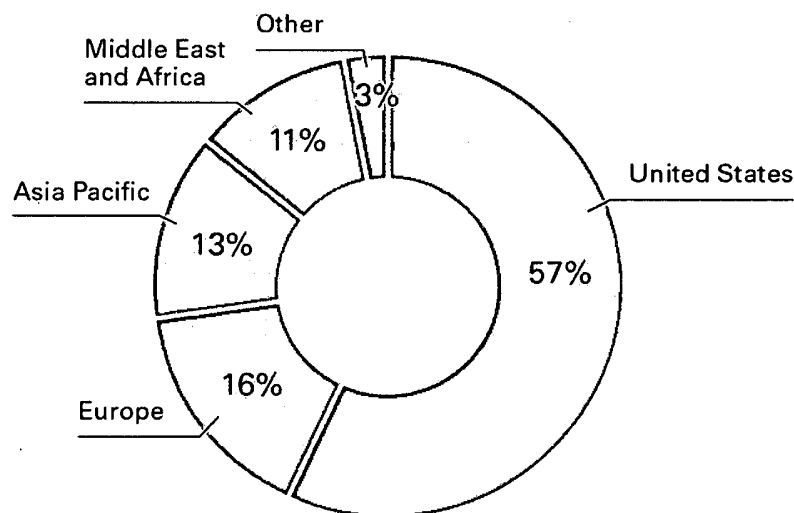
provide future aircraft maintenance and support services. The Aerospace segment ended 2021 with backlog of \$16.3 billion, up 40% from \$11.6 billion at year-end 2020.

Reflecting strong demand across our aircraft portfolio, orders in 2021 were the highest in more than a decade. The segment's book-to-bill ratio (orders divided by revenue) was 1.6-to-1 in 2021. Our December 31, 2021, backlog included orders for the new G400 and G800 aircraft, which are scheduled to enter service in 2025 and 2023, respectively.

Beyond total backlog, estimated potential contract value represents primarily options and other agreements with existing customers to purchase new aircraft and long-term aircraft services agreements. On December 31, 2021, estimated potential contract value in the Aerospace segment was \$1.7 billion.

Demand for Gulfstream aircraft remains strong across customer types and geographic regions, generating orders from public and privately held companies, individuals, and governments around the world. Geographically, U.S. customers represented approximately 70% of the segment's orders in 2021 and 57% of the segment's backlog on December 31, 2021, demonstrating continued strong domestic demand.

The following represents Gulfstream aircraft (in units) in backlog by region on December 31, 2021:



DEFENSE SEGMENTS

The total backlog in our defense segments represents the estimated remaining sales value of work to be performed under firm contracts. The funded portion of total backlog includes items that have been authorized and appropriated by the U.S. Congress and funded by customers, as well as commitments by international customers that are approved and funded similarly by their governments. The unfunded portion of total backlog includes the amounts we believe are likely to be funded, but there is no guarantee that future budgets and appropriations will provide the same funding level currently anticipated for a given program.

Estimated potential contract value in our defense segments includes unexercised options associated with existing firm contracts and unfunded work on indefinite delivery, indefinite quantity (IDIQ)

contracts. Contract options represent agreements to perform additional work under existing contracts at the election of the customer. We recognize options in backlog when the customer exercises the option and establishes a firm order. For IDIQ contracts, we evaluate the amount of funding we expect to receive and include this amount in our estimated potential contract value. This amount is often less than the total IDIQ contract value, particularly when the contract has multiple awardees. The actual amount of funding received in the future may be higher or lower than our estimate of potential contract value.

Total backlog in our defense segments was \$71.3 billion on December 31, 2021, compared with \$77.9 billion at year-end 2020, due primarily to continued performance on significant multi-year contracts in the Marine Systems segment. The Technologies segment achieved a book-to-bill ratio of 1-to-1 in 2021. Estimated potential contract value in our defense segments was \$38.2 billion on December 31, 2021, compared with \$42.4 billion at year-end 2020.

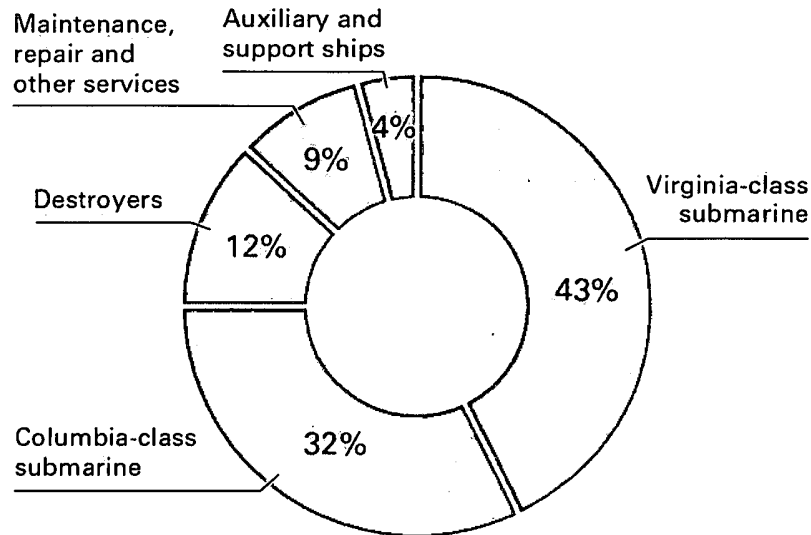
MARINE SYSTEMS

The Marine Systems segment's backlog consists of very long-term submarine and surface ship construction programs, as well as numerous engineering and repair contracts. The segment's backlog and estimated potential contract value were down compared with year-end 2020 due to continued performance on significant multi-year contracts.

We received the following significant contract awards in the Marine Systems segment during 2021:

- \$1.9 billion from the Navy for the construction of a tenth submarine in Block V of the Virginia-class submarine program.
- \$1.4 billion from the Navy to provide ongoing lead yard services for the Virginia-class and Columbia-class submarine programs.
- \$385 from the Navy for advanced nuclear plant studies (ANPS) in support of the Columbia-class submarine program.
- \$355 from the Navy to provide maintenance and repair services for the DDG-51 destroyer, San Antonio-class amphibious transport dock, Ticonderoga-class guided-missile cruiser, Whidbey Island-class dock landing ship, Los Angeles-class submarine and Nimitz-class aircraft carrier programs.
- \$140 from the Navy to provide ongoing planning and lead yard services for the DDG-51 destroyer program.

The following represents the Marine Systems segment's total estimated contract value by major program on December 31, 2021:



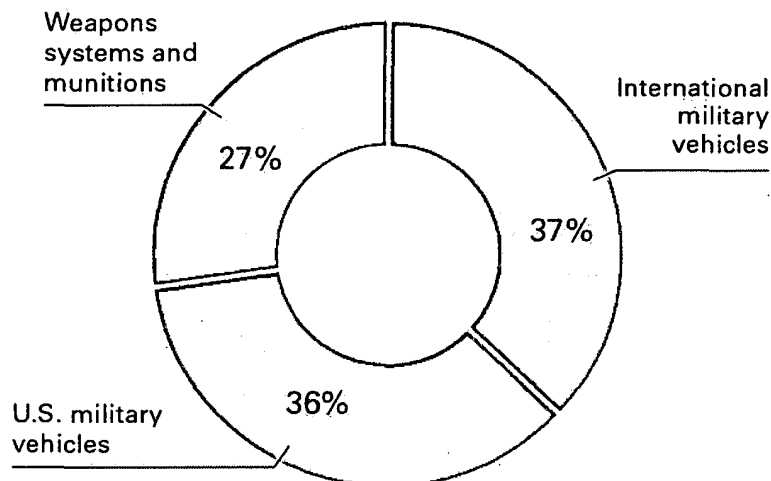
COMBAT SYSTEMS

The Combat Systems segment's backlog consists of a mix of U.S. and international combat vehicles, weapons systems and munitions programs. The vehicle programs are generally long-term, franchise programs, while the weapons systems and munitions programs tend to be shorter-term in nature. The segment's backlog and estimated potential contract value were down compared with year-end 2020 due to continued performance on significant multi-year contracts.

We received the following significant contract awards in the Combat Systems segment during 2021:

- \$845 from the U.S. Army for Stryker vehicle upgrades, inventory management and support services.
- \$665 for various munitions, ordnance and missile subcomponents.
- \$555 to produce Piranha 5 wheeled armored vehicles and provide associated support services to the Romanian Armed Forces.
- \$435 from the Army to produce Stryker M-SHORAD vehicles.
- \$360 from the Army for Abrams main battle tank upgrades, mission control units and systems technical support.
- \$305 for the production of an M1A2 Abrams tank variant for an international customer.
- \$175 from the Army for the production of Hydra-70 rockets.

The following represents the Combat Systems segment's total estimated contract value by market on December 31, 2021:



TECHNOLOGIES

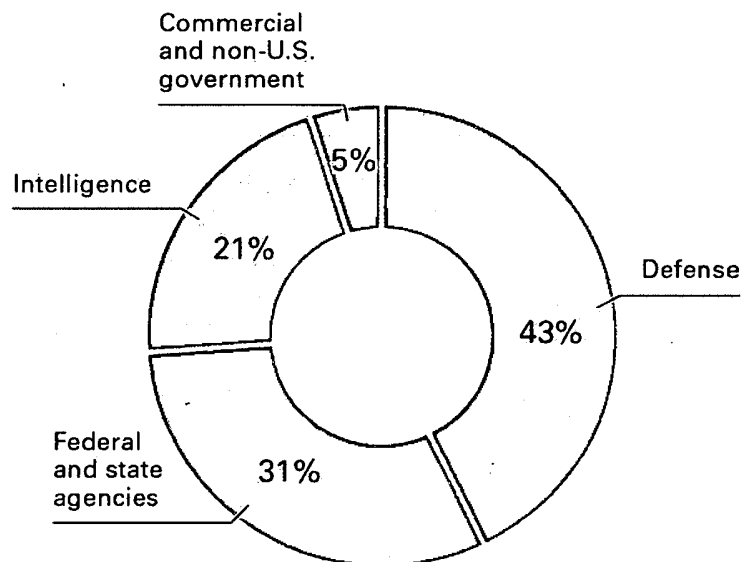
The Technologies segment's backlog consists of thousands of contracts and task orders across a mix of U.S. and non-U.S. government and commercial customers. These contracts can be shorter-cycle or span multiple years, but commonly include a small, initially funded order. Therefore, our estimated potential contract value of \$27 billion is an important indicator of future orders and revenue. In 2021, approximately 60% of the segment's orders were from additional work on IDIQ contracts or the exercise of options. Our total estimated contract value decreased slightly in 2021 driven by impacts to customer acquisition cycles resulting from the COVID-19 pandemic.

We received the following significant contract awards in the Technologies segment during 2021:

- A contract to provide IT and technical support services to the Defense Intelligence Agency (DIA) and the National Geospatial-Intelligence Agency (NGA) under the Solutions for the Information Technology Enterprise (SITE) III program. The program has a maximum potential value of \$12.6 billion among multiple awardees.
- \$2.5 billion for several key contracts for classified customers and additional IDIQ awards with a maximum potential value of \$4.2 billion among multiple awardees.
- An IDIQ contract to provide ship, carrier, submarine and service craft modernization for the Navy. The program has a maximum potential value of \$805 among multiple awardees.
- \$355 to design, develop, implement and operate a state's healthcare exchange. The contract has a maximum potential value of \$600.
- \$35 for hardware, software and logistics sustainment support for the Army. The contract has a maximum potential value of \$535.

- \$395 from the Army for computing and communications equipment under the Common Hardware Systems-5 (CHS-5) program.
- \$285 from the Centers for Medicare and Medicaid Services (CMS) for several contracts, including work to provide cloud services and software tools.

The following represents the Technologies segment's total estimated contract value by customer on December 31, 2021:



LIQUIDITY AND CAPITAL RESOURCES

We place a strong emphasis on cash flow generation, which is underpinned by an operating discipline focused on cost control and working capital management. This emphasis gives us the flexibility for prudent capital deployment, while allowing us to step down debt over time, and preserves a strong balance sheet for future opportunities.

We evaluate a variety of capital deployment options based on current market conditions and our long-term outlook, and we believe agility is a key component of our capital deployment strategy as market conditions change over time. Our capital deployment priorities include investments in our products and services to drive long-term growth, a predictable dividend, strategic acquisitions and opportunistic share repurchases.

We believe cash generated by operating activities, supplemented by commercial paper issuances, is sufficient to satisfy our short- and long-term liquidity needs. An additional potential source of capital is the issuance of long-term debt in capital market transactions.

We ended 2021 with a cash and equivalents balance of \$1.6 billion compared with \$2.8 billion at the end of 2020. The following is a discussion of our major operating, investing and financing activities in 2021 and 2020, as classified on the Consolidated Statement of Cash Flows in Item 8:

Year Ended December 31	2021	2020
Net cash provided by operating activities	\$ 4,271	\$ 3,858
Net cash used by investing activities	(882)	(974)
Net cash used by financing activities	(4,590)	(903)

OPERATING ACTIVITIES

Cash provided by operating activities was \$4.3 billion in 2021 compared with \$3.9 billion in 2020. The primary driver of cash inflows in both years was net earnings. Cash flows in 2021 were affected positively by an increase in customer deposits driven by Gulfstream aircraft orders and the continued reduction in inventory from the sale of G500 flight-test aircraft in our Aerospace segment. Cash flows in 2020 were affected negatively by the change in customer deposits and inventory in our Aerospace segment due to our position in the development and production cycles of our Gulfstream aircraft models.

INVESTING ACTIVITIES

Cash used by investing activities was \$882 in 2021 and \$974 in 2020. Our investing activities include cash paid for capital expenditures and business acquisitions; purchases, sales and maturities of marketable securities; and proceeds from asset sales.

Capital Expenditures. The primary use of cash for investing activities in both years was capital expenditures. Capital expenditures were \$887 in 2021 and \$967 in 2020. Capital expenditures have been at an elevated level the past two years as we continue to invest in our shipyards, particularly for the planned growth in submarine construction. Other capital expenditures include equipment and facility enhancements to support new and existing programs across our businesses. We expect capital expenditures to be approximately 2.5% of revenue in 2022.

FINANCING ACTIVITIES

Cash used by financing activities was \$4.6 billion in 2021 and \$903 in 2020. Financing activities include the use of cash for repurchases of common stock, payment of dividends, and debt and commercial paper repayments. Our financing activities also include a source of cash from proceeds received from debt and commercial paper issuances and employee stock option exercises.

Dividends. On March 3, 2021, our board of directors declared an increased quarterly dividend of \$1.19 per share, the 24th consecutive annual increase. Previously, the board had increased the quarterly dividend to \$1.10 per share in March 2020. Cash dividends paid were \$1.3 billion in 2021 and \$1.2 billion in 2020.

Share Repurchases. Our board of directors from time to time authorizes management to repurchase outstanding shares of our common stock on the open market. We paid \$1.8 billion and \$587 in 2021 and 2020, respectively, to repurchase our outstanding shares. On December 31, 2021, 12.1 million shares remained authorized by our board of directors for repurchase, representing 4.3% of our total shares outstanding.

Debt Issuances and Repayments. In May 2021, we issued \$1.5 billion of fixed-rate notes. The proceeds, together with cash on hand and commercial paper issuances, were used to repay fixed- and floating-rate notes totaling \$2.5 billion that matured in May 2021 and for general corporate purposes. In July 2021, we repaid an additional \$500 of fixed-rate notes at the scheduled maturity. Fixed-rate notes of \$1 billion mature in November 2022, and we currently plan to repay these notes using cash on hand, potentially supplemented by commercial paper or other borrowings. For additional information regarding our debt obligations, including scheduled debt maturities and interest rates, see Note K to the Consolidated Financial Statements in Item 8.

On December 31, 2021, we had no commercial paper outstanding, but we maintain the ability to access the commercial paper market in the future. Separately, we have \$5 billion in committed bank credit facilities for general corporate purposes and working capital needs and to support our commercial paper issuances. We also have an effective shelf registration on file with the Securities and Exchange Commission (SEC) that allows us to access the debt markets.

NON-GAAP FINANCIAL MEASURES

We emphasize the efficient conversion of net earnings into cash and the deployment of that cash to maximize shareholder returns. As described below, we use free cash flow from operations and return on invested capital (ROIC) to measure our performance in these areas. While we believe these metrics provide useful information, they are not defined operating measures under U.S. generally accepted accounting principles (GAAP), and there are limitations associated with their use. Our calculation of these metrics may not be completely comparable to similarly titled measures of other companies due to potential differences in the method of calculation. As a result, the use of these metrics should not be considered in isolation from, or as a substitute for, other GAAP measures.

Free Cash Flow. We define free cash flow from operations as net cash provided by operating activities less capital expenditures. We believe free cash flow from operations is a useful measure for investors because it portrays our ability to generate cash from our businesses for purposes such as repaying debt, funding business acquisitions, repurchasing our common stock and paying dividends. We use free cash flow from operations to assess the quality of our earnings and as a key performance measure in evaluating management. The following table reconciles the free cash flow from operations with net cash provided by operating activities, as classified on the Consolidated Statement of Cash Flows in Item 8:

Year Ended December 31	2021	2020	2019
Net cash provided by operating activities	\$ 4,271	\$ 3,858	\$ 2,981
Capital expenditures	(887)	(967)	(987)
Free cash flow from operations	\$ 3,384	\$ 2,891	\$ 1,994
Cash flows as a percentage of net earnings:			
Net cash provided by operating activities	131%	122%	86%
Free cash flow from operations	104%	91%	57%

Return on Invested Capital. We believe ROIC is a useful measure for investors because it reflects our ability to generate returns from the capital we have deployed in our operations. We use ROIC to evaluate investment decisions and as a performance measure in evaluating management. We define ROIC as net operating profit after taxes divided by average invested capital. Net operating profit after taxes is defined as net earnings plus after-tax interest and amortization expense, calculated using the

statutory federal income tax rate. Average invested capital is defined as the sum of the average debt and average shareholders' equity excluding accumulated other comprehensive loss. Average debt and average shareholders' equity excluding accumulated other comprehensive loss are calculated using the respective balances at the end of the preceding year and the respective balances at the end of each of the four quarters of the year presented. ROIC excludes goodwill impairments and non-economic accounting changes as they are not reflective of company performance.

ROIC is calculated as follows:

Year Ended December 31	2021	2020	2019
Net earnings	\$ 3,257	\$ 3,167	\$ 3,484
After-tax interest expense	340	386	373
After-tax amortization expense	254	280	287
Net operating profit after taxes	\$ 3,851	\$ 3,833	\$ 4,144
Average invested capital	\$ 32,270	\$ 32,431	\$ 29,620
Return on invested capital	11.9%	11.8%	14.0%

CASH REQUIREMENTS

The following is a discussion of how we expect to meet the future cash requirements from known contractual and other obligations.

The majority of our revenue is derived from long-term contracts and programs that can span several years. We similarly enter into long-term agreements with suppliers and subcontractors for goods and services in support of these contracts and programs with payment terms that are generally aligned with the payment terms from our customers. In some instances, we require advance payments or deposits from our customers, which help fund our purchase commitments and reduce the risk of customer performance.

Additionally, we have significant liabilities under our defined benefit retirement plans. As these liabilities are settled using plan assets, our future cash requirements associated with these liabilities are generally limited to the annual cash contributions to these plans required in accordance with Internal Revenue Service (IRS) regulations. See Note S to the Consolidated Financial Statements in Item 8 for additional information.

Other obligations, such as scheduled principal and interest payments on our fixed-rate notes, and scheduled payments in accordance with our lease agreements are expected to be satisfied using cash generated from operations. See Notes J and K to the Consolidated Financial Statements in Item 8 for additional information.

ADDITIONAL FINANCIAL INFORMATION

APPLICATION OF CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Management's Discussion and Analysis of Financial Condition and Results of Operations is based on the Consolidated Financial Statements, which have been prepared in accordance with GAAP. The preparation of financial statements in accordance with GAAP requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent

assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. We employ judgment in making our estimates, but they are based on historical experience, currently available information and various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates. We believe our judgment is applied consistently and produces financial information that fairly depicts our results of operations for all periods presented.

In our opinion, the following policies are critical and require the use of significant judgment in their application:

Revenue. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account for revenue. A contract's transaction price is allocated to each distinct performance obligation within that contract and recognized as revenue when, or as, the performance obligation is satisfied. Our performance obligations are satisfied over time as work progresses or at a point in time.

Substantially all of our revenue in the defense segments is recognized over time, because control is transferred continuously to our customers. Typically, revenue is recognized over time using costs incurred to date relative to total estimated costs at completion to measure progress toward satisfying our performance obligations. Incurred cost represents work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. Contract costs include labor, material, overhead and, when appropriate, G&A expenses.

Most of our revenue recognized at a point in time is for the manufacture of business jet aircraft in our Aerospace segment. Revenue on these contracts is recognized when the customer obtains control of the asset, which is generally upon delivery and acceptance by the customer of the fully outfitted aircraft.

The majority of our revenue is derived from long-term contracts and programs that can span several years. Accounting for long-term contracts and programs involves the use of various techniques to estimate total contract revenue and costs. For long-term contracts, we estimate the profit on a contract as the difference between the total estimated revenue and expected costs to complete a contract and recognize that profit over the life of the contract.

Contract estimates are based on various assumptions to project the outcome of future events that often span several years. These assumptions include labor productivity and availability; the complexity of the work to be performed; the cost and availability of materials; the performance of subcontractors; and the availability and timing of funding from the customer.

The nature of our contracts gives rise to several types of variable consideration, including claims, award fees and incentive fees. We include in our contract estimates additional revenue for submitted contract modifications or claims against the customer when we believe we have an enforceable right to the modification or claim, the amount can be estimated reliably and its realization is probable. In evaluating these criteria, we consider the contractual/legal basis for the claim, the cause of any additional costs incurred, the reasonableness of those costs and the objective evidence available to support the claim. We include award fees or incentive fees in the estimated transaction price when there is a basis to reasonably estimate the amount of the fee. These estimates are based on historical award experience, anticipated performance and our best judgment at the time.

As a significant change in one or more of these estimates could affect the profitability of our contracts, we review and update our contract-related estimates regularly. We recognize adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of

the adjustment on profit recorded to date on a contract is recognized in the period the adjustment is identified. Revenue and profit in future periods of contract performance are recognized using the adjusted estimate. The aggregate impact of adjustments in contract estimates increased our operating earnings (and diluted earnings per share) by \$377 (\$1.06) in 2021 and \$283 (\$0.78) in 2020. No adjustment on any one contract was material to the Consolidated Financial Statements in 2021 or 2020.

Consistent with industry practice, we classify assets and liabilities related to long-term contracts as current, even though some of these amounts may not be realized within one year. The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances and deposits (contract liabilities) on the Consolidated Balance Sheet. These assets and liabilities are reported on the Consolidated Balance Sheet on a contract-by-contract basis at the end of each reporting period.

Long-lived Assets and Goodwill. We review long-lived assets, including intangible assets subject to amortization, for impairment whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable. We assess the recoverability of the carrying value of assets held for use based on a review of undiscounted projected cash flows. Impairment losses, where identified, are measured as the excess of the carrying value of the long-lived assets over the estimated fair value as determined by discounted cash flows.

Goodwill represents the purchase price paid in excess of the fair value of net tangible and intangible assets acquired in a business combination. We review goodwill for impairment annually at each of our reporting units or when circumstances indicate that the likelihood of an impairment is greater than 50%. Such circumstances include a significant adverse change in the business climate for one of our reporting units or a decision to dispose of a reporting unit or a significant portion of a reporting unit. Our reporting units are consistent with our operating segments in Note O to the Consolidated Financial Statements in Item 8. We use both qualitative and quantitative approaches when testing goodwill for impairment. When determining the approach to be used, we consider the current facts and circumstances of each reporting unit as well as the excess of each reporting unit's estimated fair value over its carrying value based on our most recent quantitative assessments. Our qualitative approach evaluates the business environment and various events impacting the reporting unit including, but not limited to, macroeconomic conditions, changes in the business environment and reporting unit-specific events. If, based on the qualitative assessment, we determine that it is more likely than not that the fair value of a reporting unit is greater than its carrying value, then a quantitative assessment is not necessary. However, if a quantitative assessment is determined to be necessary, we compare the fair value of a reporting unit to its carrying value and, if necessary, recognize an impairment loss for the amount by which the carrying value exceeds the reporting unit's fair value.

Our estimate of fair value is based primarily on the discounted cash flows of the underlying operations and requires the use of judgment by management. The process requires numerous assumptions, including the timing of work embedded in our backlog, our performance and profitability under our contracts, our success in securing future business, the appropriate risk-adjusted interest rate used to discount the projected cash flows, and terminal-value growth rates applied to the final year of projected cash flows. Due to the variables inherent in our estimates of fair value, differences in assumptions may have a material effect on the result of our impairment analysis. To assess the reasonableness of our discounted cash flows, we compare the sum of our reporting units' fair value to our market capitalization. Additionally, we evaluate the reasonableness of each reporting unit's fair value by comparing the fair value to peer companies and recent relevant market transactions.

As of December 31, 2021, we completed qualitative assessments for our reporting units as the estimated fair values of each of the reporting units significantly exceeded the respective carrying values based on our most recent quantitative assessments, which were performed as of December 31, 2018, for the Aerospace, Marine Systems and Combat Systems reporting units, and as of December 31, 2020, for the Technologies reporting unit. Our qualitative assessments, including consideration of the impact of the COVID-19 pandemic, did not present indicators of impairment for the reporting units.

Commitments and Contingencies. We are subject to litigation and other legal proceedings arising either from the normal course of business or under provisions relating to the protection of the environment. Estimating liabilities and costs associated with these matters requires the use of judgment. We record a charge against earnings when a liability associated with claims or pending or threatened litigation is probable and when our exposure is reasonably estimable. The ultimate resolution of our exposure related to these matters may change as further facts and circumstances become known.

Retirement Plans. Our pension and other post-retirement benefit costs and obligations depend on several assumptions and estimates, which are based on our best judgment, including consideration of current and future market conditions. For a discussion of our assumptions and any changes to these assumptions, as well as the impact of these changes, which is reported as an actuarial gain or loss in the reconciliation of the change in the benefit obligation, see Note S to the Consolidated Financial Statements in Item 8. The key assumption is the interest rates used to discount estimated future pension benefits. We base the discount rates on a current yield curve developed from a portfolio of high-quality, fixed-income investments with maturities consistent with the projected benefit payout period. The effect of a 25-basis-point increase or decrease in the discount rate assumption on the December 31, 2021, pension benefit obligation is (\$509) and \$536, respectively.

As described under Other Contract Costs in Note A to the Consolidated Financial Statements in Item 8, our contractual arrangements with the U.S. government provide for the recovery of benefit costs for our government retirement plans. We have elected to defer recognition of the benefit costs until such costs can be allocated to contracts. Therefore, the impact of annual changes in financial reporting assumptions on the retirement benefit cost for these plans does not immediately affect our operating results.

GUARANTOR FINANCIAL INFORMATION

The outstanding notes described in Note K to the Consolidated Financial Statements in Item 8, issued by General Dynamics Corporation (the parent), are fully and unconditionally guaranteed on an unsecured, joint and several basis by several of the parent's 100%-owned subsidiaries (the guarantors). The guarantee of each guarantor ranks equally in right of payment with all other existing and future senior unsecured indebtedness of such guarantor. A listing of the guarantors is included in an exhibit to this Form 10-K.

Because the parent is a holding company, its cash flow and ability to service its debt, including the outstanding notes, depends on the performance of its subsidiaries and the ability of those subsidiaries to distribute cash to the parent, whether by dividends, loans or otherwise. Holders of the outstanding notes have a direct claim only against the parent and the guarantors.

Under the relevant indenture, the guarantee of each guarantor is limited to the maximum amount that can be guaranteed without rendering the guarantee voidable under applicable laws relating to fraudulent conveyance or fraudulent transfer or similar laws affecting the rights of creditors generally. Each

indenture also provides that, in the event (1) of a merger, consolidation or sale or disposition of all or substantially all of the assets of a guarantor (other than a transaction with the parent or any of its subsidiaries) or (2) there occurs a transfer, sale or other disposition of the voting stock of a guarantor so that the guarantor is no longer a subsidiary of the parent, then the guarantor or the entity acquiring the assets (in the event of the sale or other disposition of all or substantially all of the assets of a guarantor) will be released and relieved of any obligations under the guarantee.

The following summarized financial information presents the parent and guarantors (collectively, the combined obligor group) on a combined basis. The summarized financial information of the combined obligor group excludes net investment in and earnings of subsidiaries related to interests held by the combined obligor group in subsidiaries that are not guarantors of the notes.

STATEMENT OF EARNINGS INFORMATION

Year Ended December 31	2021
Revenue	\$ 13,444
Operating costs and expenses, excluding G&A	(11,604)
Net earnings	687

BALANCE SHEET INFORMATION

	December 31, 2021	December 31, 2020
Cash and equivalents	\$ 925	\$ 1,952
Other current assets	3,149	2,894
Noncurrent assets	3,597	3,082
Total assets	\$ 7,671	\$ 7,928
Short-term debt and current portion of long-term debt	\$ 999	\$ 2,998
Other current liabilities	3,190	2,944
Long-term debt	10,424	9,922
Other noncurrent liabilities	3,844	5,645
Total liabilities	\$ 18,457	\$ 21,509

The summarized balance sheet information presented above includes the funded status of the company's primary qualified U.S. government pension plans as the parent has the ultimate obligation for the plans.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk, primarily from foreign currency exchange rates, interest rates, commodity prices and investments. See Note Q to the Consolidated Financial Statements in Item 8 for a discussion of commodity price risk. The following quantifies the market risk exposure arising from hypothetical changes in foreign currency exchange rates and interest rates.

On December 31, 2021, we had notional forward exchange contracts outstanding of \$6.8 billion. On December 31, 2020, we had notional forward exchange and interest rate swap contracts outstanding of \$9.4 billion. A 10% unfavorable rate movement in our portfolio of forward exchange and interest rate swap contracts would have resulted in the following hypothetical, incremental pretax (losses) gains:

(Dollars in millions)	2021	2020
Recognized	\$ (1)	\$ 44
Unrecognized	(196)	(344)

Foreign Currency Risk. Our exchange-rate sensitivity relates primarily to changes in the Canadian dollar, euro and Swiss franc exchange rates. These losses and gains would be offset by corresponding gains and losses in the remeasurement of the underlying transactions being hedged. We believe these foreign currency forward exchange contracts and the offsetting underlying commitments, when taken together, do not create material market risk.

Interest Rate Risk. On December 31, 2021, we had \$11.5 billion principal amount of fixed-rate debt. Our fixed-rate debt obligations are not putable, and we do not trade these securities in the market. A 10% unfavorable interest rate movement would not have a material impact on the fair value of our fixed-rate debt.

Investment Risk. Our investment policy allows for purchases of fixed-income securities with an investment-grade rating and a maximum maturity of up to five years. On December 31, 2021 and 2020, we held \$1.6 billion and \$2.8 billion in cash and equivalents, respectively, but held no marketable securities other than those held in trust to meet some of our obligations under workers' compensation and non-qualified pension plans. On December 31, 2021 and 2020, we held marketable securities in trust of \$191 and \$211, respectively. These marketable securities are reflected at fair value on the Consolidated Balance Sheet in other current and noncurrent assets.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CONSOLIDATED STATEMENT OF EARNINGS

(Dollars in millions, except per-share amounts)	Year Ended December 31		
	2021	2020	2019
Revenue:			
Products	\$ 22,428	\$ 22,188	\$ 23,130
Services	16,041	15,737	16,220
	38,469	37,925	39,350
Operating costs and expenses:			
Products	(18,524)	(18,192)	(18,611)
Services	(13,537)	(13,408)	(13,752)
General and administrative (G&A)	(2,245)	(2,192)	(2,417)
	(34,306)	(33,792)	(34,780)
Operating earnings	4,163	4,133	4,570
Other, net	134	82	92
Interest, net	(424)	(477)	(460)
Earnings before income tax	3,873	3,738	4,202
Provision for income tax, net	(616)	(571)	(718)
Net earnings	\$ 3,257	\$ 3,167	\$ 3,484
Earnings per share			
Basic	\$ 11.61	\$ 11.04	\$ 12.09
Diluted	\$ 11.55	\$ 11.00	\$ 11.98

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(Dollars in millions)	Year Ended December 31		
	2021	2020	2019
Net earnings	\$ 3,257	\$ 3,167	\$ 3,484
(Losses) gains on cash flow hedges	(174)	366	97
Foreign currency translation adjustments	(103)	353	186
Change in retirement plans' funded status	2,365	(453)	(857)
Other comprehensive income (loss), pretax	2,088	266	(574)
(Provision) benefit for income tax, net	(458)	2	156
Other comprehensive income (loss), net of tax	1,630	268	(418)
Comprehensive income	\$ 4,887	\$ 3,435	\$ 3,066

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

CONSOLIDATED BALANCE SHEET

(Dollars in millions)	December 31	
	2021	2020
ASSETS		
Current assets:		
Cash and equivalents	\$ 1,603	\$ 2,824
Accounts receivable	3,041	3,161
Unbilled receivables	8,498	8,024
Inventories	5,340	5,745
Other current assets	1,505	1,789
Total current assets	19,987	21,543
Noncurrent assets:		
Property, plant and equipment, net	5,417	5,100
Intangible assets, net	1,978	2,117
Goodwill	20,098	20,053
Other assets	2,593	2,495
Total noncurrent assets	30,086	29,765
Total assets	\$ 50,073	\$ 51,308
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt and current portion of long-term debt	\$ 1,005	\$ 3,003
Accounts payable	3,167	2,952
Customer advances and deposits	6,266	6,276
Other current liabilities	3,540	3,733
Total current liabilities	13,978	15,964
Noncurrent liabilities:		
Long-term debt	10,490	9,995
Other liabilities	7,964	9,688
Commitments and contingencies (see Note M)		
Total noncurrent liabilities	18,454	19,683
Shareholders' equity:		
Common stock	482	482
Surplus	3,278	3,124
Retained earnings	35,420	33,498
Treasury stock	(19,619)	(17,893)
Accumulated other comprehensive loss	(1,920)	(3,550)
Total shareholders' equity	17,641	15,661
Total liabilities and shareholders' equity	\$ 50,073	\$ 51,308

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

(Dollars in millions)	Year Ended December 31		
	2021	2020	2019
Cash flows from operating activities - continuing operations:			
Net earnings	\$ 3,257	\$ 3,167	\$ 3,484
Adjustments to reconcile net earnings to net cash from operating activities:			
Depreciation of property, plant and equipment	568	523	466
Amortization of intangible and finance lease right-of-use assets	322	355	363
Equity-based compensation expense	126	128	133
Deferred income tax (benefit) provision	(66)	(127)	92
(Increase) decrease in assets, net of effects of business acquisitions:			
Accounts receivable	138	371	176
Unbilled receivables	(410)	(116)	(1,303)
Inventories	405	502	(376)
Increase (decrease) in liabilities, net of effects of business acquisitions:			
Accounts payable	194	(215)	6
Customer advances and deposits	354	(707)	(105)
Other, net	(617)	(23)	45
Net cash provided by operating activities	4,271	3,858	2,981
Cash flows from investing activities:			
Capital expenditures	(887)	(967)	(987)
Other, net	5	(7)	(7)
Net cash used by investing activities	(882)	(974)	(994)
Cash flows from financing activities:			
Repayment of fixed-rate notes	(2,500)	(2,000)	—
Proceeds from commercial paper, gross (maturities greater than 3 months)	1,997	420	—
Repayment of commercial paper, gross (maturities greater than 3 months)	(1,997)	(420)	—
Purchases of common stock	(1,828)	(587)	(231)
Proceeds from fixed-rate notes	1,497	3,960	—
Dividends paid	(1,315)	(1,240)	(1,152)
Repayment of floating-rate notes	(500)	(500)	—
Proceeds from (repayment of) credit facility, net	6	(441)	291
Repayment of commercial paper, net	—	—	(850)
Other, net	50	(95)	(55)
Net cash used by financing activities	(4,590)	(903)	(1,997)
Net cash used by discontinued operations	(20)	(59)	(51)
Net (decrease) increase in cash and equivalents	(1,221)	1,922	(61)
Cash and equivalents at beginning of year	2,824	902	963
Cash and equivalents at end of year	\$ 1,603	\$ 2,824	\$ 902

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY

(Dollars in millions)	Common Stock		Retained	Treasury	Accumulated Other Comprehensive	Total
	Par	Surplus	Earnings	Stock	Loss	Shareholders' Equity
December 31, 2018	\$ 482	\$ 2,946	\$ 29,326	\$ (17,244)	\$ (3,400)	\$ 12,110
Net earnings	—	—	3,484	—	—	3,484
Cash dividends declared	—	—	(1,177)	—	—	(1,177)
Equity-based awards	—	93	—	70	—	163
Shares purchased	—	—	—	(184)	—	(184)
Other comprehensive loss	—	—	—	—	(418)	(418)
December 31, 2019	482	3,039	31,633	(17,358)	(3,818)	13,978
Cumulative-effect adjustment*	—	—	(37)	—	—	(37)
Net earnings	—	—	3,167	—	—	3,167
Cash dividends declared	—	—	(1,265)	—	—	(1,265)
Equity-based awards	—	85	—	67	—	152
Shares purchased	—	—	—	(602)	—	(602)
Other comprehensive income	—	—	—	—	268	268
December 31, 2020	482	3,124	33,498	(17,893)	(3,550)	15,661
Net earnings	—	—	3,257	—	—	3,257
Cash dividends declared	—	—	(1,335)	—	—	(1,335)
Equity-based awards	—	154	—	109	—	263
Shares purchased	—	—	—	(1,835)	—	(1,835)
Other comprehensive income	—	—	—	—	1,630	1,630
December 31, 2021	\$ 482	\$ 3,278	\$ 35,420	\$ (19,619)	\$ (1,920)	\$ 17,641

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

* Reflects the cumulative effect of ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which we adopted on January 1, 2020.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Dollars in millions, except share and per-share amounts or unless otherwise noted)

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization. General Dynamics is a global aerospace and defense company that offers a broad portfolio of products and services in business aviation; ship construction and repair; land combat vehicles, weapons systems and munitions; and technology products and services.

Basis of Consolidation and Classification. The Consolidated Financial Statements include the accounts of General Dynamics Corporation and our wholly owned and majority-owned subsidiaries. We eliminate all inter-company balances and transactions in the Consolidated Financial Statements.

Consistent with industry practice, we classify assets and liabilities related to long-term contracts as current, even though some of these amounts may not be realized within one year.

Further discussion of our significant accounting policies is contained in the other notes to these financial statements.

Use of Estimates and Other Uncertainties. The nature of our business requires that we make estimates and assumptions in accordance with U.S. generally accepted accounting principles (GAAP). These estimates and assumptions affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. We base our estimates on historical experience, currently available information and various other assumptions that we believe are reasonable under the circumstances. Actual results may differ from these estimates.

Research and Development Expenses. Company-sponsored research and development (R&D) expenses, including Aerospace product-development costs, were \$415 in 2021, \$374 in 2020 and \$466 in 2019. R&D expenses trended downward in 2019 and 2020 with the completion of the G500 and G600 aircraft test programs, and increased in 2021 driven by activities primarily associated with the G700 aircraft test program. R&D expenses are included in operating costs and expenses in the Consolidated Statement of Earnings in the period in which they are incurred. Customer-sponsored R&D expenses are charged directly to the related contracts.

The Aerospace segment has cost-sharing arrangements with some of its suppliers that enhance the segment's internal development capabilities and offset a portion of the financial cost associated with the segment's product development efforts. These arrangements explicitly state that supplier contributions are for reimbursement of costs we incur in the development of new aircraft models and technologies, and we retain substantial rights in the products developed under these arrangements. We record amounts received from these cost-sharing arrangements as a reduction of R&D expenses. We have no obligation to refund any amounts received under the agreements regardless of the outcome of the development efforts. Under the typical terms of an agreement, payments received from suppliers for their share of the costs are based on milestones and are recognized as received. Our policy is to defer payments in excess of the costs we have incurred.

Interest, Net. Net interest expense consisted of the following:

Year Ended December 31	2021	2020	2019
Interest expense	\$ 431	\$ 489	\$ 472
Interest income	(7)	(12)	(12)
Interest expense, net	\$ 424	\$ 477	\$ 460

See Note K for information regarding our debt obligations, including interest rates.

Cash and Equivalents and Investments in Debt and Equity Securities. We consider securities with a maturity of three months or less to be cash equivalents. Our cash balances are invested primarily in time deposits rated A-/A3 or higher. Our investments in other securities are included in other current and noncurrent assets on the Consolidated Balance Sheet. We report our equity securities at fair value with subsequent changes in fair value recognized in net earnings. We report our available-for-sale debt securities at fair value with unrealized gains and losses recognized as a component of other comprehensive income in the Consolidated Statement of Comprehensive Income. We had no trading or held-to-maturity debt securities on December 31, 2021 or 2020. See Note P for additional information regarding our investments in debt and equity securities.

Other Contract Costs. Other contract costs represent amounts accrued under GAAP that are not currently allocable to U.S. government contracts in accordance with the Federal Acquisition Regulation (FAR) and Cost Accounting Standards (CAS). These costs include workers' compensation, pension and other post-retirement benefits, and environmental obligations. We defer these costs in other current assets on the Consolidated Balance Sheet until they can be allocated to contracts, which is generally after they are paid. We expect to recover these costs through ongoing business, including existing backlog and probable follow-on contracts. We regularly assess the probability of recovery of these costs. If the backlog in the future does not support the continued deferral of these costs, the profitability of our remaining contracts could be adversely affected. Other contract costs on December 31, 2021 and 2020, were \$305 and \$499, respectively.

Acquisitions and Divestitures. In the last three years, we acquired six businesses in our Aerospace segment, two businesses in our Combat Systems segment and a business in our Technologies segment. The operating results of these acquisitions have been included with our reported results since the respective closing dates. The purchase prices of the acquisitions have been allocated to the estimated fair value of net tangible and intangible assets acquired, with any excess purchase price recorded as goodwill.

In 2020, we completed the sale of a business in our Aerospace segment and two businesses in our Technologies segment, one of which was classified as held for sale on the Consolidated Balance Sheet on December 31, 2019. In 2019, we completed the sale of a business in our Technologies segment that was classified as held for sale on the Consolidated Balance Sheet on December 31, 2018.

Long-lived Assets and Goodwill. We review long-lived assets, including intangible assets subject to amortization, for impairment whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable. We assess the recoverability of the carrying value of assets held for use based on a review of undiscounted projected cash flows. Impairment losses, where identified, are measured as the excess of the carrying value of the long-lived assets over the estimated fair value as determined by discounted cash flows.

Goodwill represents the purchase price paid in excess of the fair value of net tangible and intangible assets acquired in a business combination. We review goodwill for impairment annually at each of our reporting units or when circumstances indicate that the likelihood of an impairment is greater than 50%. Our reporting units are consistent with our operating segments in Note O. We use both qualitative and quantitative approaches when testing goodwill for impairment. When determining the approach to be used, we consider the current facts and circumstances of each reporting unit as well as the excess of each reporting unit's estimated fair value over its carrying value based on our most recent quantitative assessments. Our qualitative approach evaluates the business environment and various events impacting the reporting unit including, but not limited to, macroeconomic conditions, changes in the business environment and reporting unit-specific events. If, based on the qualitative assessment, we determine that it is more likely than not that the fair value of a reporting unit is greater than its carrying value, then a quantitative assessment is not necessary. However, if a quantitative assessment is determined to be necessary, we compare the fair value of a reporting unit to its carrying value and, if necessary, recognize an impairment loss for the amount by which the carrying value exceeds the reporting unit's fair value. Our estimate of fair value is based primarily on the discounted cash flows of the underlying operations.

As of December 31, 2021, we completed qualitative assessments for our reporting units as the estimated fair values of each of the reporting units significantly exceeded the respective carrying values based on our most recent quantitative assessments, which were performed as of December 31, 2018, for the Aerospace, Marine Systems and Combat Systems reporting units, and as of December 31, 2020, for the Technologies reporting unit. Our qualitative assessments, including consideration of the impact of the coronavirus (COVID-19) pandemic, did not present indicators of impairment for the reporting units. For a summary of our goodwill by reporting unit, see Note H.

Accounting Standards Updates. There are accounting standards that have been issued by the Financial Accounting Standards Board (FASB) but are not yet effective. These standards are not expected to have a material impact on our results of operations, financial condition or cash flows.

B. REVENUE

Performance Obligations. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account for revenue. A contract's transaction price is allocated to each distinct performance obligation within that contract and recognized as revenue when, or as, the performance obligation is satisfied. The majority of our contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and is, therefore, not distinct. Some of our contracts have multiple performance obligations, most commonly due to the contract covering multiple phases of the product life cycle (development, production, maintenance and support). For contracts with multiple performance obligations, we allocate the contract's transaction price to each performance obligation using our best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling price is the expected cost plus a margin approach, under which we forecast our expected costs of satisfying a performance obligation and then add an appropriate margin for that distinct good or service.

Contract modifications are routine in the performance of our contracts. Contracts are often modified to account for changes in contract specifications or requirements. In most instances, contract modifications are for goods or services that are not distinct and, therefore, are accounted for as part of the existing contract.

Our performance obligations are satisfied over time as work progresses or at a point in time. Revenue from products and services transferred to customers over time accounted for 78% of our revenue in 2021, 77% in 2020 and 73% in 2019. Substantially all of our revenue in the defense segments is recognized over time, because control is transferred continuously to our customers. Typically, revenue is recognized over time using costs incurred to date relative to total estimated costs at completion to measure progress toward satisfying our performance obligations. Incurred cost represents work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. Contract costs include labor, material, overhead and, when appropriate, G&A expenses.

Revenue from goods and services transferred to customers at a point in time accounted for 22% of our revenue in 2021, 23% in 2020 and 27% in 2019. Most of our revenue recognized at a point in time is for the manufacture of business jet aircraft in our Aerospace segment. Revenue on these contracts is recognized when the customer obtains control of the asset, which is generally upon delivery and acceptance by the customer of the fully outfitted aircraft.

On December 31, 2021, we had \$87.6 billion of remaining performance obligations, which we also refer to as total backlog. We expect to recognize approximately 35% of our remaining performance obligations as revenue in 2022, an additional 35% by the end of 2024 and the balance thereafter.

Contract Estimates. The majority of our revenue is derived from long-term contracts and programs that can span several years. Accounting for long-term contracts and programs involves the use of various techniques to estimate total contract revenue and costs. For long-term contracts, we estimate the profit on a contract as the difference between the total estimated revenue and expected costs to complete a contract and recognize that profit over the life of the contract.

Contract estimates are based on various assumptions to project the outcome of future events that often span several years. These assumptions include labor productivity and availability; the complexity of the work to be performed; the cost and availability of materials; the performance of subcontractors; and the availability and timing of funding from the customer.

The nature of our contracts gives rise to several types of variable consideration, including claims, award fees and incentive fees. We include in our contract estimates additional revenue for submitted contract modifications or claims against the customer when we believe we have an enforceable right to the modification or claim, the amount can be estimated reliably and its realization is probable. In evaluating these criteria, we consider the contractual/legal basis for the claim, the cause of any additional costs incurred, the reasonableness of those costs and the objective evidence available to support the claim. We include award fees or incentive fees in the estimated transaction price when there is a basis to reasonably estimate the amount of the fee. These estimates are based on historical award experience, anticipated performance and our best judgment at the time.

As a significant change in one or more of these estimates could affect the profitability of our contracts, we review and update our contract-related estimates regularly. We recognize adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of the adjustment on profit recorded to date on a contract is recognized in the period the adjustment is identified. Revenue and profit in future periods of contract performance are recognized using the adjusted estimate. If at any time the estimate of contract profitability indicates an anticipated loss on the contract, we recognize the total loss in the period it is identified.

The impact of adjustments in contract estimates on our operating earnings can be reflected in either operating costs and expenses or revenue. The aggregate impact of adjustments in contract estimates increased our revenue, operating earnings and diluted earnings per share as follows:

Year Ended December 31	2021	2020	2019
Revenue	\$ 411	\$ 389	\$ 342
Operating earnings	377	283	271
Diluted earnings per share	\$ 1.06	\$ 0.78	\$ 0.74

No adjustment on any one contract was material to the Consolidated Financial Statements in 2021, 2020 or 2019.

Revenue by Category. Our portfolio of products and services consists of approximately 10,000 active contracts. The following series of tables presents our revenue disaggregated by several categories.

Revenue by major products and services was as follows:

Year Ended December 31	2021	2020	2019
Aircraft manufacturing	\$ 5,864	\$ 6,115	\$ 7,541
Aircraft services	2,271	1,960	2,260
Total Aerospace	8,135	8,075	9,801
Nuclear-powered submarines	7,117	6,938	6,254
Surface ships	2,328	2,055	1,912
Repair and other services	1,081	986	1,017
Total Marine Systems	10,526	9,979	9,183
Military vehicles	4,699	4,687	4,620
Weapons systems, armament and munitions	2,006	1,991	1,906
Engineering and other services	646	545	481
Total Combat Systems	7,351	7,223	7,007
Information technology (IT) services	8,069	7,892	8,422
C5ISR* solutions	4,388	4,756	4,937
Total Technologies	12,457	12,648	13,359
Total revenue	\$ 38,469	\$ 37,925	\$ 39,350

* Command, control, communications, computers, cyber, intelligence, surveillance and reconnaissance

Revenue by contract type was as follows:

Year Ended December 31, 2021	Aerospace	Marine Systems	Combat Systems	Technologies	Total Revenue
Fixed-price	\$ 7,329	\$ 6,711	\$ 6,400	\$ 5,362	\$ 25,802
Cost-reimbursement	—	3,812	890	5,195	9,897
Time-and-materials	806	3	61	1,900	2,770
Total revenue	\$ 8,135	\$ 10,526	\$ 7,351	\$ 12,457	\$ 38,469

Year Ended December 31, 2020	Aerospace	Marine Systems	Combat Systems	Technologies	Total Revenue
Fixed-price	\$ 7,402	\$ 6,924	\$ 6,159	\$ 5,794	\$ 26,279
Cost-reimbursement	—	3,045	997	5,300	9,342
Time-and-materials	673	10	67	1,554	2,304
Total revenue	\$ 8,075	\$ 9,979	\$ 7,223	\$ 12,648	\$ 37,925

Year Ended December 31, 2019	Aerospace	Marine Systems	Combat Systems	Technologies	Total Revenue
Fixed-price	\$ 8,949	\$ 6,331	\$ 6,049	\$ 6,344	\$ 27,673
Cost-reimbursement	—	2,839	894	5,263	8,996
Time-and-materials	852	13	64	1,752	2,681
Total revenue	\$ 9,801	\$ 9,183	\$ 7,007	\$ 13,359	\$ 39,350

Our segments operate under fixed-price, cost-reimbursement and time-and-materials contracts. Our production contracts are primarily fixed-price. Under these contracts, we agree to perform a specific scope of work for a fixed amount. Contracts for research, engineering, repair and maintenance, and other services are typically cost-reimbursement or time-and-materials. Under cost-reimbursement contracts, the customer reimburses contract costs incurred and pays a fixed, incentive or award-based fee. These fees are determined by our ability to achieve targets set in the contract, such as cost, quality, schedule and performance. Under time-and-materials contracts, the customer pays a fixed hourly rate for direct labor and generally reimburses us for the cost of materials.

Each of these contract types presents advantages and disadvantages. Typically, we assume more risk with fixed-price contracts. However, these types of contracts offer additional profits when we complete the work for less than originally estimated. Cost-reimbursement contracts generally subject us to lower risk. Accordingly, the associated base fees are usually lower than fees earned on fixed-price contracts. Under time-and-materials contracts, our profit may vary if actual labor-hour rates vary significantly from the negotiated rates. Also, because these contracts can provide little or no fee for managing material costs, the content mix can impact profitability.

Revenue by customer was as follows:

Year Ended December 31, 2021	Aerospace	Marine Systems	Combat Systems	Technologies	Total Revenue
U.S. government:					
Department of Defense (DoD)	\$ 255	\$ 10,325	\$ 3,869	\$ 6,937	\$ 21,386
Non-DoD	—	6	10	4,846	4,862
Foreign military sales (FMS)	84	186	294	34	598
Total U.S. government	339	10,517	4,173	11,817	26,846
U.S. commercial	4,381	3	223	201	4,808
Non-U.S. government	622	4	2,881	415	3,922
Non-U.S. commercial	2,793	2	74	24	2,893
Total revenue	\$ 8,135	\$ 10,526	\$ 7,351	\$ 12,457	\$ 38,469

Year Ended December 31, 2020					
U.S. government:					
DoD	\$ 394	\$ 9,656	\$ 3,813	\$ 6,977	\$ 20,840
Non-DoD	—	9	12	4,705	4,726
FMS	119	206	366	46	737
Total U.S. government	513	9,871	4,191	11,728	26,303
U.S. commercial	4,268	97	254	272	4,891
Non-U.S. government	221	9	2,704	551	3,485
Non-U.S. commercial	3,073	2	74	97	3,246
Total revenue	\$ 8,075	\$ 9,979	\$ 7,223	\$ 12,648	\$ 37,925

Year Ended December 31, 2019					
U.S. government:					
DoD	\$ 305	\$ 8,837	\$ 3,695	\$ 7,027	\$ 19,864
Non-DoD	88	2	13	5,151	5,254
FMS	105	188	340	56	689
Total U.S. government	498	9,027	4,048	12,234	25,807
U.S. commercial	5,270	142	229	327	5,968
Non-U.S. government	399	9	2,663	673	3,744
Non-U.S. commercial	3,634	5	67	125	3,831
Total revenue	\$ 9,801	\$ 9,183	\$ 7,007	\$ 13,359	\$ 39,350

Contract Balances. The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances and deposits (contract liabilities) on the Consolidated Balance Sheet. In our defense segments, amounts are billed as work progresses in accordance with agreed-upon contractual terms, either at periodic intervals (e.g., biweekly or monthly) or upon achievement of contractual milestones. Generally, billing occurs subsequent to revenue recognition, resulting in contract assets. However, we sometimes receive advances or deposits from our customers, particularly on our international contracts, before revenue is recognized, resulting in contract liabilities. These assets and liabilities are reported on the Consolidated Balance Sheet on a contract-by-contract basis at the end of each reporting period. In our Aerospace segment, we generally receive deposits from customers upon contract execution and upon achievement of contractual milestones. These deposits are liquidated when revenue is recognized. Changes in the contract asset and

liability balances during the year ended December 31, 2021, were not materially impacted by any other factors.

Revenue recognized in 2021, 2020 and 2019 that was included in the contract liability balance at the beginning of each year was \$3.4 billion, \$3.8 billion and \$4.5 billion, respectively. This revenue represented primarily the sale of business jet aircraft.

C. EARNINGS PER SHARE

We compute basic earnings per share (EPS) using net earnings for the period and the weighted average number of common shares outstanding during the period. Basic weighted average shares outstanding have decreased in 2021 and 2020 due to share repurchases. See Note N for further discussion of our share repurchases. Diluted EPS incorporates the additional shares issuable upon the assumed exercise of stock options and the release of restricted stock and restricted stock units (RSUs).

Basic and diluted weighted average shares outstanding were as follows (in thousands):

Year Ended December 31	2021	2020	2019
Basic weighted average shares outstanding	280,427	286,922	288,286
Dilutive effect of stock options and restricted stock/RSUs*	1,590	991	2,550
Diluted weighted average shares outstanding	282,017	287,913	290,836

* Excludes outstanding options to purchase shares of common stock that had exercise prices in excess of the average market price of our common stock during the year and, therefore, the effect of including these options would be antidilutive. These options totaled 5,037 in 2021, 7,159 in 2020 and 4,985 in 2019.

D. INCOME TAXES

Income Tax Provision. We calculate our provision for federal, state and foreign income taxes based on current tax law. The following is a summary of our net provision for income taxes for continuing operations:

Year Ended December 31	2021	2020	2019
Current:			
U.S. federal	\$ 515	\$ 558	\$ 471
State	30	8	36
Foreign	137	132	119
Total current	682	698	626
Deferred:			
U.S. federal	(53)	(130)	49
State	(5)	(2)	1
Foreign	(8)	5	42
Total deferred	(66)	(127)	92
Provision for income taxes, net	\$ 616	\$ 571	\$ 718
Net income tax payments	\$ 740	\$ 764	\$ 572

The reported tax provision differs from the amounts paid because some income and expense items are recognized in different time periods for financial reporting than for income tax purposes. State and local income taxes allocable to U.S. government contracts are included in operating costs and expenses in the Consolidated Statement of Earnings and, therefore, are not included in the provision above.

The reconciliation from the statutory federal income tax rate to our effective income tax rate follows:

Year Ended December 31	2021	2020	2019
Statutory federal income tax rate	21.0%	21.0%	21.0%
Domestic tax credits	(2.0)	(4.6)	(2.0)
Equity-based compensation	(0.1)	(0.2)	(1.1)
Foreign derived intangible income	(1.5)	(2.1)	(1.4)
State tax on commercial operations, net of federal benefits	0.5	0.1	0.7
Global impact of international operations	(1.0)	1.9	0.2
Other, net	(1.0)	(0.8)	(0.3)
Effective income tax rate	15.9%	15.3%	17.1%

Net Deferred Tax Liability. The tax effects of temporary differences between reported earnings and taxable income consisted of the following:

December 31	2021	2020
Retirement benefits	\$ 570	\$ 1,042
Lease liabilities	370	373
Tax loss and credit carryforwards	294	311
Salaries and wages	236	259
Workers' compensation	161	167
Other	365	373
Deferred assets	1,996	2,525
Valuation allowances	(258)	(273)
Net deferred assets	\$ 1,738	\$ 2,252
Intangible assets	\$ (1,059)	\$ (1,067)
Property, plant and equipment	(412)	(270)
Lease right-of-use assets	(367)	(379)
Contract accounting methods	(259)	(311)
Capital Construction Fund qualified ships	(57)	(59)
Other	(411)	(590)
Deferred liabilities	\$ (2,565)	\$ (2,676)
Net deferred tax liability	\$ (827)	\$ (424)

Our deferred tax assets and liabilities are included in other noncurrent assets and liabilities on the Consolidated Balance Sheet. Our net deferred tax liability consisted of the following:

December 31	2021	2020
Deferred tax asset	\$ 41	\$ 37
Deferred tax liability	(868)	(461)
Net deferred tax liability	\$ (827)	\$ (424)

We believe it is more likely than not that we will generate sufficient taxable income in future periods to realize our deferred tax assets, subject to the valuation allowances recognized.

Our deferred tax balance associated with our retirement benefits includes a deferred tax asset of \$692 on December 31, 2021, and \$1.2 billion on December 31, 2020, related to the amounts recorded in accumulated other comprehensive loss (AOCL) to recognize the funded status of our retirement plans. For a reconciliation of the decrease in funded status of our defined benefit plans in 2021, see Note S.

One of our deferred tax liabilities results from our participation in the Capital Construction Fund (CCF), a program established by the U.S. government and administered by the Maritime Administration that supports the acquisition, construction, reconstruction or operation of U.S. flag merchant marine vessels. The program allows us to defer federal and state income taxes on earnings derived from eligible programs as long as the proceeds are deposited in the fund and withdrawals are used for qualified activities. We had U.S. government accounts receivable pledged (and thereby deposited) to the CCF of \$295 on December 31, 2021 and 2020.

On December 31, 2021, we had net operating loss carryforwards of \$1 billion, substantially all of which are associated with jurisdictions that have an indefinite carryforward period.

Tax Uncertainties. We participate in the Internal Revenue Service (IRS) Compliance Assurance Process (CAP), a real-time audit of our consolidated federal corporate income tax return. The IRS has examined our consolidated federal income tax returns through 2020.

For all periods open to examination by tax authorities, we periodically assess our liabilities and contingencies based on the latest available information. Where we believe there is more than a 50% chance that our tax position will not be sustained, we record our best estimate of the resulting tax liability, including interest, in the Consolidated Financial Statements. We include any interest or penalties incurred in connection with income taxes as part of income tax expense.

Based on all known facts and circumstances and current tax law, we believe the total amount of any unrecognized tax benefits on December 31, 2021, was not material to our results of operations, financial condition or cash flows. In addition, there are no tax positions for which it is reasonably possible that the unrecognized tax benefits will vary significantly over the next 12 months, producing, individually or in the aggregate, a material effect on our results of operations, financial condition or cash flows.

E. ACCOUNTS RECEIVABLE

Accounts receivable represent amounts billed and currently due from customers. Payment is typically received from our customers either at periodic intervals (e.g., biweekly or monthly) or upon achievement of contractual milestones. Accounts receivable consisted of the following:

December 31	2021	2020
Non-U.S. government	\$ 1,569	\$ 1,701
U.S. government	1,043	1,040
Commercial	429	420
Total accounts receivable	\$ 3,041	\$ 3,161

Receivables from non-U.S. government customers included amounts related to long-term production programs for the Spanish Ministry of Defence of \$1.4 billion and \$1.6 billion on December 31, 2021 and 2020, respectively. A different ministry, the Spanish Ministry of Industry, has funded work on these

programs in advance of costs incurred by the company. The cash advances are reported on the Consolidated Balance Sheet in current customer advances and deposits and will be repaid to the Ministry of Industry as we collect on the outstanding receivables from the Ministry of Defence. The net amounts for these programs on December 31, 2021 and 2020, were advance payments of \$55 and \$245, respectively. With respect to our other receivables, we expect to collect substantially all of the year-end 2021 balance during 2022.

F. UNBILLED RECEIVABLES

Unbilled receivables represent revenue recognized on long-term contracts (contract costs and estimated profits) less associated advances and progress billings. These amounts will be billed in accordance with the agreed-upon contractual terms. Unbilled receivables consisted of the following:

December 31	2021	2020
Unbilled revenue	\$ 39,566	\$ 36,657
Advances and progress billings	(31,068)	(28,633)
Net unbilled receivables	\$ 8,498	\$ 8,024

On December 31, 2021 and 2020, net unbilled receivables included \$3.3 billion and \$3.4 billion, respectively, associated with two large international contracts in our Combat Systems segment. We had experienced payment delays in 2018 and 2019 on a wheeled vehicle contract that was negotiated in 2012 before finalizing a contract amendment in 2020 with the customer that included a revised payment schedule. Under the amended contract, we have received progress payments in 2020 and 2021 that have reduced the program's unbilled balance to \$2 billion. The remaining scheduled progress payments will liquidate the net unbilled receivables balance by the end of 2023. A separate tracked vehicle contract that was signed in 2010 has experienced an unbilled receivable build-up over the past year while we work to resolve concerns that were raised by the customer on certain aspects of the program. As a result, the balance on this program has grown to \$1.3 billion. Other than the balance related to the two large international contracts, we expect to bill substantially all of the remaining year-end 2021 net unbilled receivables balance during 2022. The amount not expected to be billed in 2022 results primarily from the agreed-upon contractual billing terms.

G&A costs in unbilled revenue on December 31, 2021 and 2020, were \$501 and \$427, respectively.

G. INVENTORIES

The majority of our inventories are for business jet aircraft. Our inventories are stated at the lower of cost or net realizable value. Work in process represents largely labor, material and overhead costs associated with aircraft in the manufacturing process and is based primarily on the estimated average unit cost in a production lot. Raw materials are valued primarily on the first-in, first-out method. We record pre-owned aircraft acquired in connection with the sale of new aircraft at the lower of the trade-in value or the estimated net realizable value.

Inventories consisted of the following:

December 31	2021	2020
Work in process	\$ 3,654	\$ 3,990
Raw materials	1,651	1,712
Finished goods	22	30
Pre-owned aircraft	13	13
Total inventories	\$ 5,340	\$ 5,745

H. GOODWILL AND INTANGIBLE ASSETS

Goodwill. The changes in the carrying amount of goodwill by reporting unit were as follows:

	Aerospace	Marine Systems	Combat Systems	Information Technology	Mission Systems	Technologies	Total Goodwill
December 31, 2019 (a)	\$ 2,831	\$ 297	\$ 2,681	\$ 9,700	\$ 4,168	\$ —	\$ 19,677
Acquisitions (b)	72	—	65	—	—	—	137
Other (c)	162	—	40	46	(9)	—	239
Change in reporting unit composition (d)	—	—	—	(9,746)	(4,159)	13,905	—
December 31, 2020 (e)	3,065	297	2,786	—	—	13,905	20,053
Acquisitions (b)	33	—	54	—	—	—	87
Other (c)	(59)	—	(13)	—	—	30	(42)
December 31, 2021 (e)	\$ 3,039	\$ 297	\$ 2,827	\$ —	\$ —	\$ 13,935	\$ 20,098

- (a) Goodwill in the Information Technology and Mission Systems reporting units was net of \$536 and \$1.3 billion of accumulated impairment losses, respectively.
- (b) Included adjustments during the purchase price allocation period.
- (c) Consisted primarily of adjustments for foreign currency translation. Activity for the year ended December 31, 2020, also included an allocation of goodwill to operations classified as held for sale.
- (d) Effective December 31, 2020, we reorganized our Information Technology and Mission Systems operating segments into a single Technologies segment. This reorganization similarly changed the composition of our reporting units. Accordingly, goodwill of the Information Technology and Mission Systems reporting units was combined and assigned to the Technologies reporting unit.
- (e) Goodwill in the Technologies reporting unit was net of \$1.8 billion of accumulated impairment losses.

Intangible Assets. Intangible assets consisted of the following:

December 31	Gross Carrying Amount (a)	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount (a)	Accumulated Amortization	Net Carrying Amount
	2021			2020		
Contract and program intangible assets (b)	\$ 3,239	\$ (1,547)	\$ 1,692	\$ 3,399	\$ (1,600)	\$ 1,799
Trade names and trademarks	501	(238)	263	516	(229)	287
Technology and software	70	(48)	22	134	(106)	28
Other intangible assets	64	(63)	1	161	(158)	3
Total intangible assets	\$ 3,874	\$ (1,896)	\$ 1,978	\$ 4,210	\$ (2,093)	\$ 2,117

- (a) Changes in gross carrying amounts consisted primarily of adjustments for write-offs of fully amortized intangible assets, acquired intangible assets and foreign currency translation.
- (b) Consisted of acquired backlog and probable follow-on work and associated customer relationships.

We did not recognize any impairments of our intangible assets in 2021, 2020 or 2019. The amortization lives (in years) of our intangible assets on December 31, 2021, were as follows:

Intangible Asset	Range of Amortization Life
Contract and program intangible assets	7-30
Trade names and trademarks	30
Technology and software	5-15
Other intangible assets	7

Amortization expense is included in operating costs and expenses in the Consolidated Statement of Earnings. Amortization expense for intangible assets was \$226 in 2021, \$261 in 2020 and \$277 in 2019. We expect to record annual amortization expense over the next five years as follows:

Year Ended December 31	Amortization Expense
2022	\$ 200
2023	185
2024	173
2025	166
2026	161

I. PROPERTY, PLANT AND EQUIPMENT, NET

Property, plant and equipment (PP&E) is carried at historical cost, net of accumulated depreciation. Net PP&E by major asset class consisted of the following:

December 31	2021	2020
Machinery and equipment	\$ 6,281	\$ 5,941
Buildings and improvements	3,712	3,558
Construction in process	1,057	802
Land and improvements	414	413
Total PP&E	11,464	10,714
Accumulated depreciation	(6,047)	(5,614)
PP&E, net	\$ 5,417	\$ 5,100

We depreciate most of our assets using the straight-line method and the remainder using accelerated methods. Buildings and improvements are depreciated over periods of up to 50 years. Machinery and equipment are depreciated over periods of up to 30 years. Our government customers provide certain facilities and equipment for our use that are not included above.

J. LEASES

We determine at its inception whether an arrangement that provides us control over the use of an asset is a lease. We recognize at lease commencement a right-of-use (ROU) asset and lease liability based on the present value of the future lease payments over the lease term. We have elected not to recognize an ROU asset and lease liability for leases with terms of 12 months or less. Some of our leases include options to

extend the term of the lease for up to 30 years or to terminate the lease within 1 year. When it is reasonably certain that we will exercise the option, we include the impact of the option in the lease term for purposes of determining total future lease payments. As most of our lease agreements do not explicitly state the discount rate implicit in the lease, we use our incremental borrowing rate on the commencement date to calculate the present value of future payments.

Our leases commonly include payments that are based on the Consumer Price Index (CPI) or other similar indices. These variable lease payments are included in the calculation of the ROU asset and lease liability. Other variable lease payments, such as usage-based amounts, are excluded from the ROU asset and lease liability, and are expensed as incurred. In addition to the present value of the future lease payments, the calculation of the ROU asset also includes any deferred rent, lease pre-payments and initial direct costs of obtaining the lease, such as commissions.

In addition to the base rent, real estate leases typically contain provisions for common-area maintenance and other similar services, which are considered non-lease components for accounting purposes. For our real estate leases, we apply a practical expedient to include these non-lease components in calculating the ROU asset and lease liability. For all other types of leases, non-lease components are excluded from our ROU assets and lease liabilities and expensed as incurred.

Our leases are for office space, manufacturing facilities, and machinery and equipment. Real estate represents over 75% of our lease obligations.

The components of lease costs were as follows:

Year Ended December 31	2021	2020	2019
Finance lease cost:			
Amortization of right-of-use assets	\$ 96	\$ 94	\$ 86
Interest on lease liabilities	20	25	24
Operating lease cost	323	326	332
Short-term lease cost	71	62	75
Variable lease cost	18	12	14
Sublease income	(18)	(16)	(13)
Total lease costs, net	\$ 510	\$ 503	\$ 518

Additional information related to leases was as follows:

Year Ended December 31	2021	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 322	\$ 323	\$ 325
Operating cash flows from finance leases	21	25	24
Financing cash flows from finance leases	66	64	57
Right-of-use assets obtained in exchange for lease liabilities:			
Operating leases	249	205	365
Finance leases	27	45	50

Additional quantitative lease information was as follows:

December 31	2021	2020
Weighted-average remaining lease term:		
Operating leases	11.5 years	10.5 years
Finance leases	13.7 years	10.1 years
Weighted-average discount rate:		
Operating leases	3%	3%
Finance leases	5%	7%

The following is a reconciliation of future undiscounted cash flows to the operating and finance lease liabilities, and the related ROU assets, presented on the Consolidated Balance Sheet on December 31, 2021:

Year Ended December 31	Operating Leases	Finance Leases
2022	\$ 289	\$ 92
2023	227	45
2024	184	27
2025	121	25
2026	96	24
Thereafter	728	202
Total future lease payments	1,645	415
Less imputed interest	302	78
Present value of future lease payments	1,343	337
Less current portion of lease liabilities	258	79
Long-term lease liabilities	\$ 1,085	\$ 258
ROU assets	\$ 1,257	\$ 319

On December 31, 2020, operating and finance lease liabilities and the related ROU assets were as follows:

	Operating Leases	Finance Leases
Current portion of lease liabilities	\$ 262	\$ 68
Long-term lease liabilities	1,149	255
ROU assets	1,328	333

Lease liabilities are included on the Consolidated Balance Sheet in current and noncurrent other liabilities, while ROU assets are included in noncurrent other assets.

On December 31, 2021, we had additional future payments on leases that had not yet commenced of \$54. These leases will commence in 2022 and 2023, and have lease terms of 1 to 20 years.

K. DEBT

Debt consisted of the following:

December 31		2021	2020
Fixed-rate notes due:	Interest rate:		
May 2021	3.000%	\$ —	\$ 2,000
July 2021	3.875%	—	500
November 2022	2.250%	1,000	1,000
May 2023	3.375%	750	750
August 2023	1.875%	500	500
November 2024	2.375%	500	500
April 2025	3.250%	750	750
May 2025	3.500%	750	750
June 2026	1.150%	500	—
August 2026	2.125%	500	500
April 2027	3.500%	750	750
November 2027	2.625%	500	500
May 2028	3.750%	1,000	1,000
April 2030	3.625%	1,000	1,000
June 2031	2.250%	500	—
April 2040	4.250%	750	750
June 2041	2.850%	500	—
November 2042	3.600%	500	500
April 2050	4.250%	750	750
Floating-rate notes due:			
May 2021	3-month LIBOR + 0.38%	—	500
Other	Various	106	117
Total debt principal		11,606	13,117
Less unamortized debt issuance costs and discounts		111	119
Total debt		11,495	12,998
Less current portion		1,005	3,003
Long-term debt		\$ 10,490	\$ 9,995

In May 2021, we issued \$1.5 billion of fixed-rate notes. The proceeds, together with cash on hand and commercial paper issuances, were used to repay fixed- and floating-rate notes totaling \$2.5 billion that matured in May 2021 and for general corporate purposes. In July 2021, we repaid an additional \$500 of fixed-rate notes at the scheduled maturity.

Interest payments associated with our debt were \$433 in 2021, \$459 in 2020 and \$434 in 2019.

The aggregate amounts of scheduled principal maturities of our debt are as follows:

Year Ended December 31	Debt Principal
2022	\$ 1,006
2023	1,255
2024	505
2025	1,503
2026	1,004
Thereafter	6,333
Total debt principal	\$ 11,606

On December 31, 2021, we had no commercial paper outstanding, but we maintain the ability to access the commercial paper market in the future. Separately, we have \$5 billion in committed bank credit facilities for general corporate purposes and working capital needs and to support our commercial paper issuances. These credit facilities include a \$2 billion 364-day facility expiring in March 2022, a \$2 billion multi-year facility expiring in March 2023 and a \$1 billion multi-year facility expiring in March 2025. We may renew or replace these credit facilities in whole or in part at or prior to their expiration dates. We also have an effective shelf registration on file with the Securities and Exchange Commission (SEC) that allows us to access the debt markets.

Our financing arrangements contain a number of customary covenants and restrictions. We were in compliance with all covenants and restrictions on December 31, 2021.

L. OTHER LIABILITIES

A summary of significant other liabilities by balance sheet caption follows:

December 31	2021	2020
Salaries and wages	\$ 1,022	\$ 1,007
Lease liabilities	337	330
Dividends payable	331	316
Retirement benefits	288	306
Workers' compensation	270	338
Other	1,292	1,436
Total other current liabilities	\$ 3,540	\$ 3,733
Retirement benefits*	\$ 2,813	\$ 5,182
Lease liabilities	1,343	1,404
Customer deposits on commercial contracts	1,250	872
Other	2,558	2,230
Total other liabilities	\$ 7,964	\$ 9,688

* For a reconciliation of the decrease in funded status of our defined benefit plans in 2021, see Note S.

M. COMMITMENTS AND CONTINGENCIES

Litigation

In 2015, Electric Boat Corporation, a subsidiary of General Dynamics Corporation, received a Civil Investigative Demand from the U.S. Department of Justice regarding an investigation of potential False Claims Act violations relating to alleged failures of Electric Boat's quality system with respect to allegedly non-conforming parts purchased from a supplier. In 2016, Electric Boat was made aware that it is a defendant in a lawsuit related to this matter which had been filed under seal in U.S. district court. Also in 2016, the Suspending and Debaring Official for the U.S. Department of the Navy issued a Show Cause Letter to Electric Boat requesting that Electric Boat respond to the official's concerns regarding Electric Boat's oversight and management with respect to its quality assurance systems for subcontractors and suppliers. Electric Boat responded to the Show Cause Letter and engaged in discussions with the U.S. government.

In the third quarter of 2019, the Department of Justice declined to intervene in the qui tam action, noting that its investigation continues, and the court unsealed the relator's complaint. In the fourth quarter of 2020, the relator filed a second amended complaint. In the third quarter of 2021, the court dismissed the relator's complaint with prejudice. The relator has appealed the dismissal of the complaint to the United States Court of Appeals. Given the current status of these matters, we are unable to express a view regarding the ultimate outcome or, if the outcome is adverse, to estimate an amount or range of reasonably possible loss. Depending on the outcome of these matters, there could be a material impact on our results of operations, financial condition and cash flows.

Additionally, various other claims and legal proceedings incidental to the normal course of business are pending or threatened against us. These other matters relate to such issues, as government investigations and claims, the protection of the environment, asbestos-related claims and employee-related matters. The nature of litigation is such that we cannot predict the outcome of these other matters. However, based on information currently available, we believe any potential liabilities in these other proceedings, individually or in the aggregate, will not have a material impact on our results of operations, financial condition or cash flows.

Environmental

We are subject to and affected by a variety of federal, state, local and foreign environmental laws and regulations. We are directly or indirectly involved in environmental investigations or remediation at some of our current and former facilities and third-party sites that we do not own but where we have been designated a potentially responsible party (PRP) by the U.S. Environmental Protection Agency or a state environmental agency. Based on historical experience, we expect that a significant percentage of the total remediation and compliance costs associated with these facilities will continue to be allowable contract costs and, therefore, recoverable under U.S. government contracts.

As required, we provide financial assurance for certain sites undergoing or subject to investigation or remediation. We accrue environmental costs when it is probable that a liability has been incurred and the amount can be reasonably estimated. Where applicable, we seek insurance recovery for costs related to environmental liabilities. We do not record insurance recoveries before collection is considered probable. Based on all known facts and analyses, we do not believe that our liability at any individual site, or in the aggregate, arising from such environmental conditions will be material to our results of operations, financial condition or cash flows. We also do not believe that the range of reasonably possible additional loss beyond what has been recorded would be material to our results of operations, financial condition or cash flows.

Other

Government Contracts. As a government contractor, we are subject to U.S. government audits and investigations relating to our operations, including claims for fines, penalties, and compensatory and treble damages. We believe the outcome of such ongoing government audits and investigations will not have a material impact on our results of operations, financial condition or cash flows.

In the performance of our contracts, we routinely request contract modifications that require additional funding from the customer. Most often, these requests are due to customer-directed changes in the scope of work. While we are entitled to recovery of these costs under our contracts, the administrative process with our customer may be protracted. Based on the circumstances, we periodically file requests for equitable adjustment (REAs) that are sometimes converted into claims. In some cases, these requests are disputed by our customer. We believe our outstanding modifications, REAs and other claims will be resolved without material impact to our results of operations, financial condition or cash flows.

Letters of Credit and Guarantees. In the ordinary course of business, we have entered into letters of credit, bank guarantees, surety bonds and other similar arrangements with financial institutions and insurance carriers totaling approximately \$1.2 billion on December 31, 2021. In addition, from time to time and in the ordinary course of business, we contractually guarantee the payment or performance of our subsidiaries arising under certain contracts.

Aircraft Trade-ins. In connection with orders for new aircraft in contract backlog, our Aerospace segment has outstanding options with some customers to trade in aircraft as partial consideration in their new-aircraft transaction. These trade-in commitments are generally structured to establish the fair market value of the trade-in aircraft at a date generally 45 or fewer days preceding delivery of the new aircraft to the customer. At that time, the customer is required to either exercise the option or allow its expiration. Other trade-in commitments are structured to guarantee a pre-determined trade-in value. These commitments present more risk in the event of an adverse change in market conditions. In either case, any excess of the pre-established trade-in price above the fair market value at the time the new aircraft is delivered is treated as a reduction of revenue in the new-aircraft sales transaction. As of December 31, 2021, the estimated change in fair market values from the date of the commitments was not material.

Labor Agreements. On December 31, 2021, approximately one-fifth of the employees of our subsidiaries were working under collectively bargained terms and conditions, including 62 collective agreements that we have negotiated directly with unions and works councils. A number of these agreements expire within any given year. Historically, we have been successful at renegotiating these labor agreements without any material disruption of operating activities. In 2022, we expect to negotiate the terms of 21 agreements covering approximately 3,000 employees. We do not expect the renegotiations will, either individually or in the aggregate, have a material impact on our results of operations, financial condition or cash flows.

Product Warranties. We provide warranties to our customers associated with certain product sales. We record estimated warranty costs in the period in which the related products are delivered. The warranty liability recorded at each balance sheet date is based generally on the number of months of warranty coverage remaining for the products delivered and the average historical monthly warranty payments. Warranty obligations incurred in connection with long-term production contracts are accounted for within the contract estimates at completion. Our other warranty obligations, primarily for business jet aircraft, are included in other current and noncurrent liabilities on the Consolidated Balance Sheet.

The changes in the carrying amount of warranty liabilities for each of the past three years were as follows:

Year Ended December 31	2021	2020	2019
Beginning balance	\$ 660	\$ 619	\$ 480
Warranty expense	104	113	258
Payments	(124)	(108)	(105)
Adjustments	1	36	(14)
Ending balance	\$ 641	\$ 660	\$ 619

N. SHAREHOLDERS' EQUITY

Authorized Stock. Our authorized capital stock consists of 500 million shares of \$1 per share par value common stock and 50 million shares of \$1 per share par value preferred stock. The preferred stock is issuable in series, with the rights, preferences and limitations of each series to be determined by our board of directors.

Shares Issued and Outstanding. On December 31, 2021, we had 481,880,634 shares of common stock issued and 277,620,943 shares of common stock outstanding, including unvested restricted stock of 532,142 shares. On December 31, 2020, we had 481,880,634 shares of common stock issued and 286,477,836 shares of common stock outstanding. No shares of our preferred stock were outstanding on either date. The only changes in our shares outstanding during 2021 and 2020 resulted from shares repurchased in the open market and share activity under our equity compensation plans. See Note R for additional details.

Share Repurchases. Our board of directors, from time to time, authorizes management to repurchase outstanding shares of our common stock on the open market. On June 2, 2021, the board of directors authorized management to repurchase up to 10 million additional shares of the company's outstanding stock. In 2021, we repurchased 10.3 million of our outstanding shares for \$1.8 billion. On December 31, 2021, 12.1 million shares remained authorized by our board of directors for repurchase, representing 4.3% of our total shares outstanding. We repurchased 4.1 million shares for \$602 in 2020 and 1.1 million shares for \$184 in 2019.

Dividends per Share. Our board of directors declared dividends per share of \$4.76 in 2021, \$4.40 in 2020 and \$4.08 in 2019. We paid cash dividends of \$1.3 billion in 2021 and \$1.2 billion in 2020 and 2019.

Accumulated Other Comprehensive Loss. The changes, pretax and net of tax, in each component of AOCL consisted of the following:

	(Losses) Gains on Cash Flow Hedges	Foreign Currency Translation Adjustments	Changes in Retirement Plans' Funded Status	AOCL
December 31, 2018	\$ (71)	\$ 102	\$ (3,431)	\$ (3,400)
Other comprehensive loss, pretax	97	186	(857)	(574)
Benefit from income tax, net	(24)	—	180	156
Other comprehensive loss, net of tax	73	186	(677)	(418)
December 31, 2019	2	288	(4,108)	(3,818)
Other comprehensive income, pretax	366	353	(453)	266
Benefit from income tax, net	(96)	—	98	2
Other comprehensive income, net of tax	270	353	(355)	268
December 31, 2020	272	641	(4,463)	(3,550)
Other comprehensive income, pretax	(174)	(103)	2,365	2,088
Provision for income tax, net	46	—	(504)	(458)
Other comprehensive income, net of tax	(128)	(103)	1,861	1,630
December 31, 2021	\$ 144	\$ 538	\$ (2,602)	\$ (1,920)

Amounts reclassified out of AOCL related primarily to changes in our retirement plans' funded status and included pretax recognized net actuarial losses and amortization of prior service credit. See Note S for these amounts, which are included in our net periodic pension and other post-retirement benefit cost.

O. SEGMENT INFORMATION

We have four operating segments: Aerospace, Marine Systems, Combat Systems and Technologies. We organize our segments in accordance with the nature of products and services offered. We measure each segment's profitability based on operating earnings. As a result, we do not allocate net interest, other income and expense items, and income taxes to our segments.

Summary financial information for each of our segments follows:

Year Ended December 31	Revenue (a)			Operating Earnings			Revenue from U.S. Government		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Aerospace	\$ 8,135	\$ 8,075	\$ 9,801	\$ 1,031	\$ 1,083	\$ 1,532	\$ 339	\$ 513	\$ 498
Marine Systems	10,526	9,979	9,183	874	854	785	10,517	9,871	9,027
Combat Systems	7,351	7,223	7,007	1,067	1,041	996	4,173	4,191	4,048
Technologies	12,457	12,648	13,359	1,275	1,211	1,311	11,817	11,728	12,234
Corporate (b)	—	—	—	(84)	(56)	(54)	—	—	—
Total	\$38,469	\$37,925	\$39,350	\$ 4,163	\$ 4,133	\$ 4,570	\$26,846	\$26,303	\$25,807

(a) See Note B for additional revenue information by segment.

(b) Corporate operating results consist primarily of equity-based compensation expense.

The following is additional summary financial information for each of our segments:

Year Ended December 31	Identifiable Assets			Capital Expenditures			Depreciation and Amortization		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Aerospace	\$ 11,748	\$ 12,050	\$ 12,324	\$ 102	\$ 95	\$ 138	\$ 205	\$ 201	\$ 178
Marine Systems	5,294	4,488	3,918	573	604	449	165	145	122
Combat Systems	11,657	12,034	11,220	100	92	109	109	95	85
Technologies	19,490	19,663	20,453	111	172	222	401	428	437
Corporate*	1,884	3,073	1,434	1	4	69	10	9	7
Total	\$ 50,073	\$ 51,308	\$ 49,349	\$ 887	\$ 967	\$ 987	\$ 890	\$ 878	\$ 829

* Corporate identifiable assets are primarily cash and equivalents.

The following table presents our revenue by geographic area based on the location of our customers:

Year Ended December 31	2021	2020	2019
North America:			
United States	\$ 31,654	\$ 31,194	\$ 31,775
Other	934	1,078	898
Total North America	32,588	32,272	32,673
Europe	2,675	2,846	2,836
Asia/Pacific	1,269	1,292	1,739
Africa/Middle East	1,703	1,249	1,785
South America	234	266	317
Total revenue	\$ 38,469	\$ 37,925	\$ 39,350

Our revenue from non-U.S. operations was \$4.4 billion in 2021, \$4.3 billion in 2020 and \$4.4 billion in 2019, and earnings from continuing operations before income taxes from non-U.S. operations were \$588 in 2021, \$585 in 2020 and \$600 in 2019. The long-lived assets associated with these operations were 4% of our total long-lived assets on December 31, 2021, 2020 and 2019.

P. FAIR VALUE

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between marketplace participants. Various valuation approaches can be used to determine fair value, each requiring different valuation inputs. The following hierarchy classifies the inputs used to determine fair value into three levels:

- Level 1 - quoted prices in active markets for identical assets or liabilities.
- Level 2 - inputs, other than quoted prices, observable by a marketplace participant either directly or indirectly.
- Level 3 - unobservable inputs significant to the fair value measurement.

We did not have any significant non-financial assets or liabilities measured at fair value on December 31, 2021 or 2020.

Our financial instruments include cash and equivalents, accounts receivable and payable, marketable securities held in trust and other investments, short- and long-term debt, and derivative financial instruments. The carrying values of cash and equivalents and accounts receivable and payable on the Consolidated Balance Sheet approximate their fair value. The following tables present the fair values of

our other financial assets and liabilities on December 31, 2021 and 2020, and the basis for determining their fair values:

	Carrying Value	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2021					
Financial Assets (Liabilities)					
Measured at fair value:					
Marketable securities held in trust:					
Cash and equivalents	\$ 4	\$ 4	\$ —	\$ 4	\$ —
Available-for-sale debt securities	125	125	—	125	—
Equity securities	62	62	62	—	—
Other investments	12	12	—	—	12
Cash flow hedge assets	320	320	—	320	—
Cash flow hedge liabilities	(98)	(98)	—	(98)	—
Measured at amortized cost:					
Short- and long-term debt principal	(11,606)	(12,549)	—	(12,549)	—
December 31, 2020					
Measured at fair value:					
Marketable securities held in trust:					
Cash and equivalents	\$ 19	\$ 19	\$ 17	\$ 2	\$ —
Available-for-sale debt securities	134	134	—	134	—
Equity securities	58	58	58	—	—
Other investments	9	9	—	—	9
Cash flow hedge assets	498	498	—	498	—
Cash flow hedge liabilities	(79)	(79)	—	(79)	—
Measured at amortized cost:					
Short- and long-term debt principal	(13,117)	(14,606)	—	(14,606)	—

Our Level 1 assets include investments in publicly traded equity securities valued using quoted prices from the market exchanges. The fair value of our Level 2 assets and liabilities, which consist primarily of fixed-income securities, cash flow hedges and our fixed-rate notes, is determined under a market approach using valuation models that incorporate observable inputs such as interest rates, bond yields and quoted prices for similar assets. Our Level 3 assets include direct private equity investments that are measured using inputs unobservable to a marketplace participant.

Q. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING ACTIVITIES

We are exposed to market risk, primarily from foreign currency exchange rates, commodity prices and investments. We may use derivative financial instruments to hedge some of these risks as described below. We do not use derivative financial instruments for trading or speculative purposes.

Foreign Currency Risk. Our foreign currency exchange rate risk relates to receipts from customers, payments to suppliers and inter-company transactions denominated in foreign currencies. To the extent possible, we include terms in our contracts that are designed to protect us from this risk. Otherwise, we enter into derivative financial instruments, principally foreign currency forward purchase and sale

contracts, designed to offset and minimize our risk. The dollar-weighted two-year average maturity of these instruments generally matches the duration of the activities that are at risk.

Commodity Price Risk. We are subject to commodity price risk, primarily on long-term, fixed-price contracts. To the extent possible, we include terms in our contracts that are designed to protect us from these risks. Some of the protective terms included in our contracts are considered derivative financial instruments but are not accounted for separately, because they are clearly and closely related to the host contract. We have not entered into any material commodity hedging contracts but may do so as circumstances warrant. We do not believe that changes in commodity prices will have a material impact on our results of operations or cash flows.

Investment Risk. Our investment policy allows for purchases of fixed-income securities with an investment-grade rating and a maximum maturity of up to five years. On December 31, 2021 and 2020, we held \$1.6 billion and \$2.8 billion in cash and equivalents, respectively, but held no marketable securities other than those held in trust to meet some of our obligations under workers' compensation and non-qualified pension plans. On December 31, 2021 and 2020, we held marketable securities in trust of \$191 and \$211, respectively. These marketable securities are reflected at fair value on the Consolidated Balance Sheet in other current and noncurrent assets. See Note P for additional details.

Hedging Activities. On December 31, 2021, we had notional forward exchange contracts outstanding of \$6.8 billion. On December 31, 2020, we had notional forward exchange and interest rate swap contracts outstanding of \$9.4 billion. These derivative financial instruments are cash flow hedges, and are reflected at fair value on the Consolidated Balance Sheet in other current assets and liabilities. See Note P for additional details.

Changes in fair value (gains and losses) related to derivative financial instruments that qualify as cash flow hedges are deferred in AOCL until the underlying transaction is reflected in earnings. Alternatively, gains and losses on derivative financial instruments that do not qualify for hedge accounting are recorded each period in earnings. All gains and losses from derivative financial instruments recognized in the Consolidated Statement of Earnings are presented in the same line item as the underlying transaction, either operating costs and expenses or interest expense.

Net gains and losses recognized in earnings on derivative financial instruments that do not qualify for hedge accounting were not material to our results of operations in any of the past three years. Net gains and losses reclassified to earnings from AOCL related to qualified hedges were also not material to our results of operations in any of the past three years, and we do not expect the amount of these gains and losses that will be reclassified to earnings during the next 12 months to be material.

We had no material derivative financial instruments designated as fair value or net investment hedges on December 31, 2021 or 2020.

Foreign Currency Financial Statement Translation. We translate foreign currency balance sheets from our international businesses' functional currency (generally the respective local currency) to U.S. dollars at the end-of-period exchange rates, and statements of earnings at the average exchange rates for each period. The resulting foreign currency translation adjustments are a component of AOCL.

We do not hedge the fluctuation in reported revenue and earnings resulting from the translation of these international operations' results into U.S. dollars. The impact of translating our non-U.S. operations' revenue and earnings into U.S. dollars was not material to our results of operations in any of the past three years. In addition, the effect of changes in foreign exchange rates on non-U.S. cash balances was not material in any of the past three years.

R. EQUITY COMPENSATION PLANS

Equity Compensation Overview. We have equity compensation plans for employees, as well as for non-employee members of our board of directors. The equity compensation plans seek to provide an effective means of attracting and retaining directors, officers and key employees, and to provide them with incentives to enhance our growth and profitability. Under the equity compensation plans, awards may be granted to officers, employees or non-employee directors in common stock, options to purchase common stock, restricted shares of common stock, participation units or any combination of these.

Annually, we grant awards of stock options, restricted stock and RSUs to participants in our equity compensation plans in early March. Additionally, we may make limited ad hoc grants on a quarterly basis for new hires or promotions. We issue common stock under our equity compensation plans from treasury stock. On December 31, 2021, in addition to the shares reserved for issuance upon the exercise of outstanding stock options, approximately 20 million shares have been authorized for awards that may be granted in the future.

Equity-based Compensation Expense. Equity-based compensation expense is included in G&A expenses. The following table details the components of equity-based compensation expense recognized in net earnings in each of the past three years:

Year Ended December 31	2021	2020	2019
Stock options	\$ 46	\$ 43	\$ 43
Restricted stock/RSUs	53	58	62
Total equity-based compensation expense, net of tax	\$ 99	\$ 101	\$ 105

Stock Options. Stock options granted under our equity compensation plans are issued with an exercise price at the fair value of our common stock determined by the average of the high and low stock prices as listed on the New York Stock Exchange (NYSE) on the date of grant. Our outstanding stock options generally vest over three years, with 50% of the options vesting after two years and the remaining 50% vesting the following year, and expire 10 years after the grant date.

We recognize compensation expense related to stock options on a straight-line basis over the vesting period of the awards, net of estimated forfeitures. Estimated forfeitures are based on our historical forfeiture experience. We estimate the fair value of stock options on the date of grant using the Black-Scholes option pricing model with the following assumptions for each of the past three years:

Year Ended December 31	2021	2020	2019
Expected volatility	26.7-27.3%	21.1-26.9%	19.7-20.0%
Weighted average expected volatility	27.3%	21.2%	19.7%
Expected term (in months)	60	60	64
Risk-free interest rate	0.6-1.2%	0.4-1.5%	1.7-2.6%
Expected dividend yield	2.9%	2.4%	2.0%

We determine the above assumptions based on the following:

- Expected volatility is based on the historical volatility of our common stock over a period equal to the expected term of the option.
- Expected term is based on assumptions used by a set of comparable peer companies.

- Risk-free interest rate is the yield on a U.S. Treasury zero-coupon issue with a remaining term equal to the expected term of the option at the grant date.
- Expected dividend yield is based on our historical dividend yield.

The resulting weighted average fair value per stock option granted (in dollars) was \$28.87 in 2021, \$24.86 in 2020 and \$29.06 in 2019. Stock option expense reduced pretax operating earnings (and on a diluted per-share basis) by \$58 (\$0.16) in 2021 and \$55 (\$0.15) in 2020 and 2019. On December 31, 2021, we had \$76 of unrecognized compensation cost related to stock options, which is expected to be recognized over a weighted average period of 1.8 years.

A summary of stock option activity during 2021 follows:

In Shares and Dollars	Shares Under Option	Weighted Average Exercise Price Per Share
Outstanding on December 31, 2020	11,128,721	\$ 167.00
Granted	2,266,080	169.01
Exercised	(1,272,976)	134.46
Forfeited/canceled	(191,411)	168.44
Outstanding on December 31, 2021	11,930,414	\$ 170.83
Vested and expected to vest on December 31, 2021	11,582,836	\$ 170.94
Exercisable on December 31, 2021	6,495,518	\$ 173.89

Summary information with respect to our stock options' intrinsic value and remaining contractual term on December 31, 2021, follows:

	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding	6.6	\$ 471
Vested and expected to vest	6.6	457
Exercisable	5.1	247

In the table above, intrinsic value is calculated as the excess, if any, of the market price of our stock on the last trading day of the year over the exercise price of the options. For stock options exercised, intrinsic value is calculated as the difference between the market price on the date of exercise and the exercise price. The total intrinsic value of stock options exercised was \$62 in 2021, \$57 in 2020 and \$244 in 2019.

Restricted Stock/RSUs. The fair value of restricted stock and RSUs equals the average of the high and low market prices of our common stock as listed on the NYSE on the date of grant. Grants of restricted stock are awards of shares of common stock. Participation units represent obligations that have a value derived from or related to the value of our common stock. These include stock appreciation rights, phantom stock units and RSUs, and are payable in cash or common stock.

Restricted stock and RSUs generally vest over a three-year restriction period after the grant date, during which recipients may not sell, transfer, pledge, assign or otherwise convey their restricted shares to another party. During this period, restricted stock recipients receive cash dividends on their restricted shares and are entitled to vote those shares, while RSU recipients receive dividend-equivalent units instead of cash dividends and are not entitled to vote their RSUs or dividend-equivalent units.

We grant RSUs with one or more performance measures determined by the compensation committee of the board of directors as described in our proxy statement. Depending on the company's performance, the number of RSUs earned may be less than, equal to or greater than the original number of RSUs awarded subject to a payout range.

We generally recognize compensation expense related to restricted stock and RSUs on a straight-line basis over the vesting period of the awards. Compensation expense related to restricted stock and RSUs reduced pretax operating earnings (and on a diluted per-share basis) by \$68 (\$0.19) in 2021, \$73 (\$0.20) in 2020 and \$79 (\$0.21) in 2019. On December 31, 2021, we had \$59 of unrecognized compensation cost related to restricted stock and RSUs, which is expected to be recognized over a weighted average period of 1.6 years.

A summary of restricted stock and RSU activity during 2021 follows:

In Shares and Dollars	Shares/ Share-Equivalent Units	Weighted Average Grant-Date Fair Value Per Share
Nonvested at December 31, 2020	1,150,151	\$ 180.98
Granted	492,104	174.34
Vested	(302,186)	220.91
Forfeited	(19,591)	167.61
Nonvested at December 31, 2021	1,320,478	\$ 169.54

The total fair value of vesting shares was \$52 in 2021, \$103 in 2020 and \$88 in 2019.

S. RETIREMENT PLANS

We provide retirement benefits to eligible employees through a variety of plans:

- Defined contribution
- Defined benefit
 - Pension (qualified and non-qualified)
 - Other post-retirement benefit

Substantially all of our plans use a December 31 measurement date consistent with our fiscal year.

Defined Contribution Plans

We provide eligible employees the opportunity to participate in defined contribution plans (commonly known as 401(k) plans), which permit contributions on a before-tax and after-tax basis. Employees may contribute to various investment alternatives. In most of these plans, we match a portion of the employees' contributions. Our contributions to these plans totaled \$398 in 2021, \$379 in 2020 and \$333 in 2019. The defined-contribution plans held approximately 17 million and 19 million shares of our common stock, representing approximately 6% and 7% of our outstanding shares on December 31, 2021 and 2020, respectively.

Defined Benefit Plans

Plan Descriptions. We have trustee, qualified pension plans covering eligible employees aligned with the markets in our business: U.S. government, non-U.S. government and commercial. Some of these plans require employees to make contributions to the plan. We also sponsor several non-qualified pension plans, which provide eligible executives with additional benefits, including excess benefits over

limits imposed on qualified plans by federal tax law. The principal factors affecting the benefits earned by participants in our pension plans are employees' years of service and compensation levels. Our primary U.S. pension plans, which comprise the majority of our unfunded obligation, were closed to new salaried participants on January 1, 2007, and were closed to new hourly participants in subsequent collective bargaining agreements over the next several years. Additionally, we have made several changes to these plans for certain participants that limit or cease the benefits that accrue for future service.

In addition to pension benefits, we maintain plans that provide post-retirement healthcare and life insurance coverage for certain employees and retirees. These benefits vary by employment status, age, service and salary level at retirement. The coverage provided and the extent to which the retirees share in the cost of the program vary throughout the company. The plans provide health and life insurance benefits only to those employees who retire directly from our service and not to those who terminate service prior to eligibility for retirement.

Contributions. It is our policy to fund our qualified pension plans in a manner that optimizes the tax deductibility and contract recovery of contributions considered within our capital deployment framework. Therefore, we may make discretionary contributions in addition to the required contributions determined in accordance with IRS regulations. We contributed \$135 to our qualified pension plans in 2021. In 2022, our required contributions are approximately \$40.

We maintain several tax-advantaged accounts, primarily Voluntary Employees' Beneficiary Association (VEBA) trusts, to fund the obligations for some of our other post-retirement benefit plans. For non-funded plans, claims are paid as received. Contributions to our other post-retirement benefit plans were not material in 2021 and are not expected to be material in 2022.

Benefit Payments. We expect the following benefits to be paid from our defined benefit plans over the next 10 years:

	Pension Benefits	Other Post-retirement Benefits
2022	\$ 885	\$ 57
2023	899	56
2024	926	54
2025	944	52
2026	967	50
2027-2031	4,921	228

Benefit Cost. Our annual benefit cost consists of five primary elements:

- the cost of benefits earned by employees for services rendered during the year.
- an interest charge on our plan liabilities.
- an expected return on our plan assets for the year.
- actuarial gains and losses, which result from changes in assumptions and differences between actual and expected return on assets and participant experience.
- the cost or credit attributed to prior service resulting from changes we make to plan benefit terms.

For qualified pension plans and other post-retirement benefit plans, actuarial gains and losses and prior service costs or credits are initially deferred in AOCL and then amortized on a straight-line basis over future years. For our qualified U.S. government pension plans, we amortize actuarial gains and

losses over a custom amortization period based on the amount of pension costs allocable to our U.S. government contracts. For the remaining qualified pension plans and other post-retirement benefit plans, we amortize only the amount of actuarial gains and losses that exceeds 10% of the greater of plan assets or benefit obligations. This amount is amortized over the average remaining service period of plan participants who are active employees unless all or almost all of a plan's participants are inactive or are not accruing additional benefits, then the amortization period is based on the average remaining life expectancy of the plan participants. To further reduce the volatility of our annual benefit cost, gains and losses resulting from the return on plan assets are included over five years in the determination of the amortizable amount of actuarial gains and losses. For non-qualified pension plans, we recognize actuarial gains and losses immediately.

Net annual benefit (credit) cost consisted of the following:

Year Ended December 31	Pension Benefits		
	2021	2020	2019
Service cost	\$ 119	\$ 115	\$ 111
Interest cost	360	491	600
Expected return on plan assets	(963)	(926)	(911)
Net actuarial loss	352	387	355
Prior service credit	(20)	(18)	(19)
Settlement/curtailment/other	70	—	—
Net annual benefit (credit) cost	\$ (82)	\$ 49	\$ 136

Year Ended December 31	Other Post-retirement Benefits		
	2021	2020	2019
Service cost	\$ 10	\$ 10	\$ 8
Interest cost	19	27	35
Expected return on plan assets	(36)	(36)	(36)
Net actuarial gain	—	(3)	(8)
Prior service credit	—	(1)	(3)
Net annual benefit credit	\$ (7)	\$ (3)	\$ (4)

In October 2021, we purchased an irrevocable group annuity contract (referred to as a buy-out contract) for approximately \$550 using retirement plan assets held in trust to transfer the related outstanding qualified pension obligations to an insurance company. As a result of the transaction, the insurance company is now required to pay and administer the retirement benefits owed to approximately 21,000 U.S. retirees and beneficiaries, with no change to the amount, timing or form of the monthly retirement benefit payments. In connection with this transaction, we recognized a non-cash settlement charge of approximately \$75 in our qualified U.S. government pension plans related to the GAAP acceleration of deferred actuarial losses included in AOCL for the plans.

Our contractual arrangements with the U.S. government provide for the recovery of pension and other post-retirement benefit costs related to employees working on government contracts, including settlement costs. See Note A for a discussion of our other contract costs. To the extent there is a non-service component of net annual benefit (credit) cost for our defined benefit plans, it is reported in other income (expense) in the Consolidated Statement of Earnings.

Funded Status. We recognize an asset or liability on the Consolidated Balance Sheet equal to the funded status of each of our defined benefit plans. The funded status is the difference between the fair

value of the plan's assets and its benefit obligation. The following is a reconciliation of the benefit obligations and plan/trust assets, and the resulting funded status, of our defined benefit plans:

Year Ended December 31	Pension Benefits		Other Post-retirement Benefits	
	2021	2020	2021	2020
Change in Benefit Obligation				
Benefit obligation at beginning of year	\$ (19,692)	\$ (18,107)	\$ (1,062)	\$ (1,027)
Service cost	(119)	(115)	(10)	(10)
Interest cost	(360)	(491)	(19)	(27)
Amendments	3	37	4	2
Actuarial gain (loss)	955	(1,780)	187	(60)
Settlement/curtailment/other	553	(65)	—	(4)
Benefits paid	881	829	60	64
Benefit obligation at end of year	\$ (17,779)	\$ (19,692)	\$ (840)	\$ (1,062)
Change in Plan/Trust Assets				
Fair value of assets at beginning of year	\$ 14,751	\$ 13,177	\$ 705	\$ 644
Actual return on plan assets	1,692	1,843	114	102
Employer contributions	135	480	—	—
Settlement/curtailment/other	(551)	58	—	—
Benefits paid	(860)	(807)	(42)	(41)
Fair value of assets at end of year	\$ 15,167	\$ 14,751	\$ 777	\$ 705
Funded status at end of year	\$ (2,612)	\$ (4,941)	\$ (63)	\$ (357)

The overall decrease in our pension benefit obligation for the year ended December 31, 2021, was due primarily to the settlement resulting from the buy-out contract and actuarial gains created by the change in the weighted-average discount rate, which increased from 2.54% at December 31, 2020, to 2.84% at December 31, 2021.

The overall increase in our pension benefit obligation for the year ended December 31, 2020, was due primarily to actuarial losses created by the change in the weighted-average discount rate, which decreased from 3.19% at December 31, 2019, to 2.54% at December 31, 2020.

Amounts recognized on the Consolidated Balance Sheet consisted of the following:

December 31	Pension Benefits		Other Post-retirement Benefits	
	2021	2020	2021	2020
Noncurrent assets	\$ 134	\$ 69	\$ 292	\$ 121
Current liabilities	(176)	(181)	(112)	(125)
Noncurrent liabilities	(2,570)	(4,829)	(243)	(353)
Net liability recognized	\$ (2,612)	\$ (4,941)	\$ (63)	\$ (357)

Amounts deferred in AOCL for our defined benefit plans consisted of the following:

December 31	Pension Benefits		Other Post-retirement Benefits	
	2021	2020	2021	2020
Net actuarial loss (gain)	\$ 3,639	\$ 5,752	\$ (277)	\$ (12)
Prior service (credit) cost	(76)	(93)	8	12
Total amount recognized in AOCL, pretax	\$ 3,563	\$ 5,659	\$ (269)	\$ —

The following is a reconciliation of the change in AOCL for our defined benefit plans:

Year Ended December 31	Pension Benefits		Other Post-retirement Benefits	
	2021	2020	2021	2020
Net actuarial (gain) loss	\$ (1,684)	\$ 863	\$ (265)	\$ (6)
Prior service credit	(3)	(38)	(4)	(1)
Amortization of:				
Net actuarial (loss) gain from prior years	(352)	(387)	—	3
Prior service credit	20	18	—	1
Settlement/curtailment/other	(77)	—	—	—
Change in AOCL, pretax	\$ (2,096)	\$ 456	\$ (269)	\$ (3)

A pension plan's funded status is the difference between the plan's assets and its projected benefit obligation (PBO). The PBO is the present value of future benefits attributed to employee services rendered to date, including assumptions about future compensation levels. On December 31, 2021 and 2020, most of our pension plans had a PBO that exceeded the plans' assets. Summary information for those plans follows:

December 31	2021	2020
PBO	\$ (16,958)	\$ (19,189)
Fair value of plan assets	14,213	14,191

A pension plan's accumulated benefit obligation (ABO) is the present value of future benefits attributed to employee services rendered to date, excluding assumptions about future compensation levels. The ABO for all pension plans was \$17.5 billion and \$19.4 billion on December 31, 2021 and 2020, respectively. The ABO for all other post-retirement plans was \$840 and \$1.1 billion on December 31, 2021 and 2020, respectively. On December 31, 2021 and 2020, most of our defined benefit plans had an ABO that exceeded the plans' assets. Summary information for those plans follows:

December 31	Pension Benefits		Other Post-retirement Benefits	
	2021	2020	2021	2020
ABO	\$ (16,775)	\$ (18,596)	\$ (384)	\$ (784)
Fair value of plan assets	14,213	13,829	36	300

Assumptions. We calculate the plan assets and liabilities for a given year and the net annual benefit cost for the subsequent year using assumptions determined as of December 31 of the year in question.

The following table summarizes the weighted average assumptions used to determine our benefit obligations:

Assumptions on December 31	2021	2020
Pension Benefits		
Benefit obligation discount rate	2.84%	2.54%
Rate of increase in compensation levels	2.77%	2.66%
Other Post-retirement Benefits		
Benefit obligation discount rate	2.89%	2.52%
Healthcare cost trend rate:		
Trend rate for next year	5.50%	6.00%
Ultimate trend rate	5.00%	5.00%
Year rate reaches ultimate trend rate	2024	2024

The following table summarizes the weighted average assumptions used to determine our net annual benefit cost:

Assumptions for Year Ended December 31	2021	2020	2019
Pension Benefits			
Discount rates:			
Benefit obligation	2.54%	3.19%	4.28%
Service cost	2.25%	2.74%	3.81%
Interest cost	1.87%	2.78%	3.92%
Expected long-term rate of return on assets	7.14%	7.41%	7.46%
Rate of increase in compensation levels	2.63%	2.73%	2.77%
Other Post-retirement Benefits			
Discount rates:			
Benefit obligation	2.52%	3.18%	4.24%
Service cost	2.97%	3.35%	4.23%
Interest cost	1.83%	2.78%	3.88%
Expected long-term rate of return on assets	6.33%	6.86%	6.84%

We base the discount rates on a current yield curve developed from a portfolio of high-quality, fixed-income investments with maturities consistent with the projected benefit payout period.

We determine the long-term rates of return on assets based on consideration of historical and forward-looking returns and the current and expected asset allocation. Beginning in 2021, we decreased the expected long-term rates of return on assets in our primary U.S. pension plans by 25 basis points and in our primary U.S. other post-retirement benefit plans by 25 basis points or 125 basis points depending on the investment mix of each plan's assets. These changes to our expected long-term rates of return resulted from an assessment of the historical and forward-looking long-term returns of our various asset classes.

Beginning in 2022, we are decreasing the expected long-term rates of return on assets by between 0 and 86 basis points in our primary U.S. pension plans and by between 0 and 300 basis points in our primary U.S. other post-retirement benefit plans. These changes to our expected long-term rates of return resulted from changes in our expected asset allocation.

In 2021, we revised the mortality assumption based on a recent experience study. Additionally, we updated several other assumptions to align them with historical experience and future expectations, including rates of retirement and cost of living increases. The impact of these changes was a net decrease of \$332 and \$85 in the benefit obligations of our pension and other post-retirement benefit plans, respectively, on December 31, 2021.

Retirement plan assumptions are based on our best judgment, including consideration of current and future market conditions. Given the long-term nature of the assumptions being made, actual outcomes can and often do differ from these estimates. Changes in these estimates impact future pension and other post-retirement benefit costs. As previously discussed, our contractual arrangements with the U.S. government provide for the recovery of pension and other post-retirement benefit costs. Therefore, the impact of annual changes in financial reporting assumptions on the cost for these plans does not immediately affect our operating results.

Assets. A committee of our board of directors is responsible for the strategic oversight of our defined benefit plan assets held in trust. Management develops investment policies and provides oversight of a third-party investment manager who reports to the committee on a regular basis. The outsourced third-party investment manager develops investment strategies and makes all day-to-day investment decisions related to defined benefit plan assets in accordance with our investment policy and target allocation percentages with the objective of generating future returns at or above our assumed long-term rates of return used to determine net annual benefit cost.

Our investment policy endeavors to strike the appropriate balance between asset growth and funded status protection. The objective of the policy is to generate asset returns that will increase the funded status of our plans while systematically reducing cost and deficit risk as funded status of the plans improve. Several of our U.S. pension plans are now utilizing a target asset allocation strategy that will automatically increase investments in liability-hedging assets (primarily fixed-income securities) and decrease investments in return-seeking assets (primarily U.S. equity investments) as the plans reach specific funded status targets.

At the end of 2021, our target asset allocation ranges for plans that are less than fully funded were:

Equities	39-68%
Fixed income	20-50%
Cash	0-5%
Other asset classes	0-16%

More than 90% of our pension plan assets are held in a single trust for our primary qualified U.S. government and commercial pension plans. On December 31, 2021, the trust was invested largely in publicly traded equities, fixed-income securities, and commingled funds comprised primarily of equity securities. The trust also invests in other asset classes consistent with our investment policy. Our investment policy allows the use of derivative instruments when appropriate to reduce anticipated asset volatility, to gain exposure to an asset class or to adjust the duration of fixed-income assets.

We hold assets in VEBA trusts for some of our other post-retirement benefit plans. These assets are managed by a third-party investment manager with oversight by management and are generally invested in publicly traded equities, fixed-income securities and commingled funds comprised primarily of equity and fixed-income securities. Our asset allocation strategy for the VEBA trusts considers funded status, potential fluctuations in our other post-retirement benefit obligation, the taxable nature of certain VEBA trusts, tax deduction limits on contributions and the regulatory environment.

Our defined benefit plan assets are reported at fair value. See Note P for a discussion of the hierarchy for determining fair value. Our Level 1 assets include investments in publicly traded equity securities. These securities are actively traded and valued using quoted prices for identical securities from the market exchanges. Our Level 2 assets include fixed-income securities and commingled funds whose underlying investments are valued using observable marketplace inputs. The fair value of plan assets invested in fixed-income securities is generally determined under a market approach using valuation models that incorporate observable inputs such as interest rates, bond yields and quoted prices for similar assets. Our plan assets that are invested in commingled funds are valued using a unit price or net asset value (NAV) that is based on the underlying investments of the fund. Our Level 3 assets consist of insurance deposit contracts, retirement annuity contracts and real estate funds.

Certain investments valued using NAV as a practical expedient are excluded from the fair value hierarchy. These investments are redeemable at NAV generally on a monthly or quarterly basis, and most have redemption notice periods of up to 90 days. The unfunded commitments related to these investments were not material on December 31, 2021 or 2020.

The fair value of our pension plan assets by investment category and the corresponding level within the fair value hierarchy were as follows:

Asset Category	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	December 31, 2021			
Cash and equivalents	\$ 130	\$ 9	\$ 121	\$ —
Equity securities (a):				
U.S. companies	1,143	1,143	—	—
Non-U.S. companies	151	151	—	—
Fixed-income securities:				
Corporate bonds (b)	4,090	—	4,090	—
Treasury securities	1,495	—	1,495	—
Commingled funds:				
Equity funds	6,592	—	6,592	—
Fixed-income funds	430	—	430	—
Real estate funds	8	—	—	8
Other investments:				
Insurance deposit contracts	163	—	—	163
Retirement annuity contracts	35	—	—	35
Total plan assets in fair value hierarchy	\$ 14,237	\$ 1,303	\$ 12,728	\$ 206
Plan assets measured using NAV as a practical expedient (c):				
Real estate funds	632			
Hedge funds	260			
Equity funds	38			
Total pension plan assets	\$ 15,167			

(a) No single equity holding amounted to more than 1% of the total fair value.

(b) Our corporate bond investments had an average rating of A.

(c) Investments measured at fair value using NAV as a practical expedient are not classified in the fair value hierarchy. The fair value amounts presented in this table for these investments are included to permit reconciliation of the fair value hierarchy to the total plan assets.

Asset Category	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	December 31, 2020			
Cash and equivalents	\$ 112	\$ —	\$ 112	\$ —
Equity securities (a):				
U.S. companies	1,137	1,137	—	—
Non-U.S. companies	90	90	—	—
Private equity investments	33	—	—	33
Fixed-income securities:				
Corporate bonds (b)	3,532	—	3,532	—
Treasury securities	1,129	—	1,129	—
Commingled funds:				
Equity funds	7,306	—	7,306	—
Fixed-income funds	416	—	416	—
Real estate funds	90	—	—	90
Other investments:				
Insurance deposit contracts	157	—	—	157
Retirement annuity contracts	38	—	—	38
Total plan assets in fair value hierarchy	\$ 14,040	\$ 1,227	\$ 12,495	\$ 318
Plan assets measured using NAV as a practical expedient (c):				
Real estate funds	446			
Hedge funds	254			
Equity funds	11			
Total pension plan assets	\$ 14,751			

(a) No single equity holding amounted to more than 1% of the total fair value.

(b) Our corporate bond investments had an average rating of A-.

(c) Investments measured at fair value using NAV as a practical expedient are not classified in the fair value hierarchy. The fair value amounts presented in this table for these investments are included to permit reconciliation of the fair value hierarchy to the total plan assets.

The fair value of our other post-retirement benefit plan assets by category and the corresponding level within the fair value hierarchy were as follows:

Asset Category (a)	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
December 31, 2021			
Cash and equivalents	\$ 12	\$ —	\$ 12
Equity securities	105	105	—
Fixed-income securities	154	—	154
Commingled funds:			
Equity funds	354	—	354
Fixed-income funds	140	—	140
Real estate funds	2	2	—
Total plan assets in fair value hierarchy	\$ 767	\$ 107	\$ 660
Plan assets measured using NAV as a practical expedient (b):			
Real estate funds	7		
Hedge funds	3		
Total other post-retirement benefit plan assets	\$ 777		

(a) We had no Level 3 investments on December 31, 2021.

(b) Investments measured at fair value using NAV as a practical expedient are not classified in the fair value hierarchy. The fair value amounts presented in this table for these investments are included to permit reconciliation of the fair value hierarchy to the total plan assets.

Asset Category (a)	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
December 31, 2020			
Cash and equivalents	\$ 16	\$ —	\$ 16
Equity securities	97	97	—
Fixed-income securities	134	—	134
Commingled funds:			
Equity funds	320	—	320
Fixed-income funds	128	—	128
Real estate funds	2	2	—
Total plan assets in fair value hierarchy	\$ 697	\$ 99	\$ 598
Plan assets measured using NAV as a practical expedient (b):			
Real estate funds	5		
Hedge funds	3		
Total other post-retirement benefit plan assets	\$ 705		

(a) We had no Level 3 investments on December 31, 2020.

(b) Investments measured at fair value using NAV as a practical expedient are not classified in the fair value hierarchy. The fair value amounts presented in this table for these investments are included to permit reconciliation of the fair value hierarchy to the total plan assets.

Changes in our Level 3 defined benefit plan assets during 2021 and 2020 were as follows:

	Insurance Deposits Contracts	Retirement Annuity Contracts	Private Equity Investments	Real Estate Funds	Total Level 3 Assets
December 31, 2019	\$ 137	\$ 35	\$ 26	\$ 84	\$ 282
Actual return on plan assets:					
Unrealized gains, net	18	3	5	7	33
Realized losses, net	—	—	—	(1)	(1)
Purchases, sales and settlements, net	2	—	2	—	4
December 31, 2020	157	38	33	90	318
Transfers out of Level 3	—	—	(33)	(82)	(115)
Actual return on plan assets:					
Unrealized gains (losses), net	9	(3)	—	—	6
Purchases, sales and settlements, net	(3)	—	—	—	(3)
December 31, 2021	\$ 163	\$ 35	\$ —	\$ 8	\$ 206

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of General Dynamics Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying Consolidated Balance Sheet of General Dynamics Corporation and subsidiaries (the Company) as of December 31, 2021 and 2020, the related Consolidated Statements of Earnings, Comprehensive Income, Cash Flows, and Shareholders' Equity for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 9, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Estimation of costs at completion for select long-term contracts

As discussed in Note B to the consolidated financial statements, accounting for long-term contracts involves estimation of the costs to complete a contract in order to accurately recognize the associated revenue. The estimated costs at completion for each contract are used to assess the proportion of revenues to recognize based upon the costs incurred-to-date in comparison to the total estimate of costs to complete the contract.

We identified the assessment of the estimation of costs at completion for a select group of long-term contracts in the defense segments as a critical audit matter. The estimated costs at completion for the select group of long-term contracts incorporates assumptions, such as labor hours and the cost of materials for the work to be performed. The evaluation of one or more of the assumptions used in the estimation of the costs to complete for the select group of contracts required a high level of subjective auditor judgment due to the nature of the individual contracts and related contract performance risks. Specifically, changes to certain assumptions may have a significant impact on the estimated revenue recorded during the period.

The following are primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the estimation of costs at completion for the select group of long-term contracts. This included contract level controls over the estimated cost assumptions. For certain contracts, we compared the Company's historical estimates of costs to actual costs incurred to assess the Company's ability to estimate accurately. Based on the nature of the individual contract, we evaluated certain assumptions within the Company's estimated costs at completion by:

- reading the underlying contract and any related amendments to obtain an understanding of the contractual requirements and related performance obligations
- assessing costs incurred to-date and the relative progress toward satisfying the performance obligation(s) of the contract
- assessing, if relevant, the estimated costs at completion on similar or predecessor contracts and programs
- inquiring of financial and operational personnel of the Company to identify factors that should be considered within the estimated costs at completion or indications of potential management bias
- inspecting correspondence, if any, between the Company and the customer regarding actual to-date and expected performance
- analyzing the sufficiency of the Company's assessment of contract performance risks included within the estimated costs at completion.

Discount rates used in pension benefit obligation

As discussed in Note S to the consolidated financial statements, the Company's pension benefit obligation and the associated plan assets were \$17.8 billion and \$15.2 billion, respectively, on December 31, 2021. These balances resulted in a net liability of \$2.6 billion. The pension benefit obligation is the estimated present value of future pension benefits attributed to employee services rendered to date, including assumptions about future compensation levels. The weighted average discount rate assumption used in estimating the pension benefit obligation as of

December 31, 2021, of 2.84% was based on a current yield curve developed from a portfolio of high-quality, fixed-income investments with maturities consistent with the projected benefit payout period. The selected discount rates have a significant effect on the measurement of the pension benefit obligation.

We identified the evaluation of the discount rates for certain pension benefit obligations to be a critical audit matter. This is due to the specialized skills required to assess the discount rate assumption used to discount estimated future benefit payments. In addition, the pension benefit obligations for certain plans were sensitive to changes in this assumption.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the pension benefit obligation process. This included a control related to the determination of the discount rate assumption. We involved an actuarial professional with specialized skills and knowledge, who assisted in:

- evaluating the Company’s methodology used to develop the discount rates
- recalculating discount rates using the cash flows and spot rates provided by the Company
- evaluating the Company’s determination of the discount rates for certain plans by comparing changes in the discount rates from the prior year against changes in published indices using publicly available market data.

/s/ KPMG LLP

We have served as the Company’s auditor since 2002.

McLean, Virginia
February 9, 2022

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Our management, under the supervision and with the participation of the Chief Executive Officer and the Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of December 31, 2021. Based on this evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, on December 31, 2021, our disclosure controls and procedures were effective.

The certifications of the company's Chief Executive Officer and Chief Financial Officer required under Section 302 of the Sarbanes-Oxley Act have been filed as Exhibits 31.1 and 31.2 to this report.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Shareholders of General Dynamics Corporation:

The management of General Dynamics Corporation is responsible for establishing and maintaining adequate internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control system was designed to provide reasonable assurance to our management and board of directors regarding the preparation and fair presentation of published financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management evaluated the effectiveness of our internal control over financial reporting as of December 31, 2021. In making this evaluation, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework (2013)*. Based on our evaluation we believe that, as of December 31, 2021, our internal control over financial reporting is effective based on those criteria.

KPMG LLP has issued an audit report on the effectiveness of our internal control over financial reporting. The KPMG report immediately follows this report.

/s/ Phebe N. Novakovic

Phebe N. Novakovic

Chairman and Chief Executive Officer

/s/ Jason W. Aiken

Jason W. Aiken

Senior Vice President and Chief Financial Officer

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of General Dynamics Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited General Dynamics Corporation and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Consolidated Balance Sheet of the Company as of December 31, 2021 and 2020, the related Consolidated Statements of Earnings, Comprehensive Income, Cash Flows, and Shareholders' Equity for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements), and our report dated February 9, 2022 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide

reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

McLean, Virginia
February 9, 2022

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2021, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required to be set forth herein, except for the information included under Information About Our Executive Officers in Part I, is included in the sections entitled "Election of the Board of Directors of the Company," "Governance of the Company – Ethos," "Audit Committee Report" and, if included, "Other Information – Delinquent Section 16(a) Reports" in our definitive proxy statement for our 2022 annual shareholders meeting (the Proxy Statement), which sections are incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required to be set forth herein is included in the sections entitled "Governance of the Company – Director Compensation," "Compensation Discussion and Analysis," "Executive Compensation" and "Compensation Committee Report" in our Proxy Statement, which sections are incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required to be set forth herein is included in the sections entitled “Security Ownership of Management” and “Security Ownership of Certain Beneficial Owners” in our Proxy Statement, which sections are incorporated herein by reference.

The information required to be set forth herein with respect to securities authorized for issuance under our equity compensation plans is included in the section entitled “Equity Compensation Plan Information” in our Proxy Statement, which section is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required to be set forth herein is included in the sections entitled “Governance of the Company – Related Person Transactions Policy” and “Election of the Board of Directors of the Company – Director Independence” in our Proxy Statement, which sections are incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Our independent registered public accounting firm is KPMG LLP, McLean, VA, Auditor ID: 185.

The information required to be set forth herein is included in the section entitled “Advisory Vote on the Selection of Independent Auditors – Audit and Non-Audit Fees” in our Proxy Statement, which section is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. Consolidated Financial Statements

Consolidated Statement of Earnings
Consolidated Statement of Comprehensive Income
Consolidated Balance Sheet
Consolidated Statement of Cash Flows
Consolidated Statement of Shareholders' Equity
Notes to Consolidated Financial Statements (A to S)

2. Index to Exhibits - General Dynamics Corporation

Commission File No. 1-3671

Exhibits listed below, which have been filed with the Securities and Exchange Commission (SEC) pursuant to the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as

amended, and which were filed as noted below, are hereby incorporated by reference and made a part of this report with the same effect as if filed herewith.

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of the company (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on October 7, 2004)
3.2	Amended and Restated Bylaws of General Dynamics Corporation (as amended effective June 2, 2021) (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on June 4, 2021)
4.1	Indenture dated as of August 27, 2001, among the company, the Guarantors (as defined therein) and The Bank of New York, as Trustee
4.2	Sixth Supplemental Indenture dated as of July 12, 2011, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on July 12, 2011)
4.3	Seventh Supplemental Indenture dated as of November 6, 2012, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on November 6, 2012)
4.4	Indenture dated as of March 24, 2015, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's registration statement on Form S-3, filed with the SEC on March 24, 2015)
4.5	First Supplemental Indenture dated as of August 12, 2016, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on August 12, 2016)
4.6	Second Supplemental Indenture dated as of September 14, 2017, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on September 14, 2017)
4.7	Indenture dated as of March 22, 2018, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's registration statement on Form S-3, filed with the SEC on March 22, 2018)
4.8	First Supplemental Indenture dated as of May 11, 2018, among the company, the Guarantors (as defined therein) and The Bank of New York Mellon, as Trustee (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on May 11, 2018)
4.9	Second Supplemental Indenture, dated as of March 25, 2020, among General Dynamics Corporation, the Guarantors named therein and The Bank of New York Mellon, as Trustee (includes forms of 3.250% Notes due 2025, 3.500% Notes due 2027, 3.625% Notes due 2030, 4.250% Notes due 2040 and 4.250% Notes due 2050) (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on March 25, 2020)

- 4.10 Third Supplemental Indenture, dated as of May 10, 2021, among General Dynamics Corporation, the Guarantors named therein and The Bank of New York Mellon, as Trustee (includes forms of 1.150% Notes due 2026, 2.250% Notes due 2031 and 2.850% Notes due 2041) (incorporated herein by reference from the company's current report on Form 8-K, filed with the SEC on May 10, 2021)
- 4.11 Description of General Dynamics Corporation's Securities Registered Pursuant to Section 12 of the Exchange Act**
- 10.1* General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (incorporated herein by reference from the company's registration statement on Form S-8 (No. 333-217656) filed with the SEC on May 4, 2017)
- 10.2* Form of Non-Statutory Stock Option Agreement pursuant to the General Dynamics Corporation 2012 Equity Compensation Plan (for certain executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended March 30, 2014, filed with the SEC on April 23, 2014)
- 10.3* Form of Non-Statutory Stock Option Agreement pursuant to the General Dynamics Corporation 2012 Equity Compensation Plan (for grants made March 4, 2015, through March 1, 2016, and including, as indicated therein, provisions for certain executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended April 5, 2015, filed with the SEC on April 29, 2015)
- 10.4* Form of Non-Statutory Stock Option Agreement pursuant to the General Dynamics Corporation 2012 Equity Compensation Plan (for grants beginning March 2, 2016, and including, as indicated therein, provisions for certain executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended April 3, 2016, filed with the SEC on April 27, 2016)
- 10.5* Form of Non-Statutory Stock Option Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants beginning May 3, 2017, and including, as indicated therein, provisions for certain executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended July 2, 2017, filed with the SEC on July 26, 2017)
- 10.6* Form of Restricted Stock Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants beginning May 3, 2017, and including, as indicated therein, provisions for certain executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended July 2, 2017, filed with the SEC on July 26, 2017)
- 10.7* Form of Restricted Stock Unit Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants beginning May 3, 2017) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended July 2, 2017, filed with the SEC on July 26, 2017)

- 10.8* Form of Performance Restricted Stock Unit Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants beginning May 3, 2017, and including, as indicated therein, provisions for certain executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended July 2, 2017, filed with the SEC on July 26, 2017)

- 10.9* Form of Performance Stock Unit Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants to named executive officers beginning March 6, 2019) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended March 31, 2019, filed with the SEC on April 24, 2019)

- 10.10* Form of Non-Statutory Stock Option Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants to named executive officers beginning March 4, 2020, and including, as indicated therein, provisions for certain named executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended March 29, 2020, filed with the SEC on April 29, 2020)

- 10.11* Form of Restricted Stock Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants to named executive officers beginning March 4, 2020, and including, as indicated therein, provisions for certain named executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended March 29, 2020, filed with the SEC on April 29, 2020)

- 10.12* Form of Performance Stock Unit Award Agreement pursuant to the General Dynamics Corporation Amended and Restated 2012 Equity Compensation Plan (for grants to named executive officers beginning March 4, 2020, and including, as indicated therein, provisions for certain named executive officers who are subject to the company's Compensation Recoupment Policy) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the period ended March 29, 2020, filed with the SEC on April 29, 2020)

- 10.13* Successor Retirement Plan for Directors (incorporated herein by reference from the company's annual report on Form 10-K for the year ended December 31, 2001, filed with the SEC on March 29, 2002)

- 10.14* General Dynamics Corporation Supplemental Savings Plan, amended and restated effective October 1, 2021 (incorporated herein by reference from the company's quarterly report on Form 10-Q for the quarter ended October 3, 2021, filed with the SEC on October 27, 2021)

- 10.15* Form of Severance Protection Agreement for executive officers (incorporated herein by reference from the company's annual report on Form 10-K for the year ended December 31, 2016, filed with the SEC on February 6, 2017)

- 10.16* General Dynamics Corporation Supplemental Retirement Plan, restated effective January 1, 2010 (incorporating amendments through March 31, 2011) (incorporated herein by reference from the company's quarterly report on Form 10-Q for the quarterly period ended April 3, 2011, filed with the SEC on May 3, 2011)

10.17*	Amendment to the General Dynamics Corporation Supplemental Retirement Plan, effective January 5, 2015 (incorporated herein by reference from the company's annual report on Form 10-K for the year ended December 31, 2014, filed with the SEC on February 9, 2015)
10.18*	Amendment to the General Dynamics Corporation Supplemental Retirement Plan, effective January 1, 2016 (incorporated herein by reference from the company's annual report on Form 10-K for the year ended December 31, 2016, filed with the SEC on February 6, 2017)
10.19*	Amendment to the General Dynamics Corporation Supplemental Retirement Plan, effective January 1, 2019 (incorporated herein by reference from the company's annual report on Form 10-K for the year ended December 31, 2018, filed with the SEC on February 13, 2019)
10.20*	Amendment to the General Dynamics Corporation Supplemental Retirement Plan, effective December 20, 2019 (incorporated herein by reference from the company's annual report on Form 10-K for the year ended December 31, 2020, filed with the SEC on February 9, 2021)
21	Subsidiaries**
22	Subsidiary Guarantors (incorporated herein by reference from the company's quarterly report on Form 10-Q for the quarter ended October 3, 2021, filed with the SEC on October 27, 2021)
23	Consent of Independent Registered Public Accounting Firm**
24	Power of Attorney**
31.1	Certification by CEO pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**
31.2	Certification by CFO pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**
32.1	Certification by CEO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
32.2	Certification by CFO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
101.INS	Inline eXtensible Business Reporting Language (XBRL) Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document**
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document**
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document**
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document**
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document**
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and contained in Exhibit 101)

* Indicates a management contract or compensatory plan or arrangement required to be filed pursuant to Item 15(b) of Form 10-K.

** Filed or furnished electronically herewith.

In accordance with Item 601(b)(4)(iii)(A) of Regulation S-K, copies of certain instruments defining the rights of holders of long-term debt of the company are not filed herewith. Pursuant to this regulation, we hereby agree to furnish a copy of any such instrument to the SEC upon request.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

GENERAL DYNAMICS CORPORATION

by /s/ William A. Moss
William A. Moss
Vice President and Controller

Dated: February 9, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on February 9, 2022, by the following persons on behalf of the Registrant and in the capacities indicated.

<u>/s/ Phebe N. Novakovic</u>	Chairman, Chief Executive Officer and Director
Phebe N. Novakovic	(Principal Executive Officer)
<u>/s/ Jason W. Aiken</u>	Senior Vice President and Chief Financial Officer
Jason W. Aiken	(Principal Financial Officer)
<u>/s/ William A. Moss</u>	Vice President and Controller
William A. Moss	(Principal Accounting Officer)
*	
<u>James S. Crown</u>	Director
*	
<u>Rudy F. deLeon</u>	Director
*	
<u>Cecil D. Haney</u>	Director
*	
<u>Mark M. Malcolm</u>	Director
*	
<u>James N. Mattis</u>	Director
*	
<u>C. Howard Nye</u>	Director
*	
<u>Catherine B. Reynolds</u>	Director
*	
<u>Laura J. Schumacher</u>	Director
*	
<u>Robert K. Steel</u>	Director
*	
<u>John G. Stratton</u>	Director
*	
<u>Peter A. Wall</u>	Director

* By Gregory S. Gallopoulos pursuant to a Power of Attorney executed by the directors listed above, which Power of Attorney has been filed as an exhibit hereto and incorporated herein by reference thereto.

/s/ Gregory S. Gallopoulos
 Gregory S. Gallopoulos
 Senior Vice President, General Counsel and Secretary

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