

TAT TECHNOLOGIES LTD
Form 20-F
March 27, 2019

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

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE
ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

OR

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

For the transition period from _____ to _____

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

Date of event requiring this shell company report

Commission file number: 0-16050

TAT TECHNOLOGIES LTD.
(Exact name of Registrant as specified in its charter
and translation of Registrant's name into English)

Israel
(Jurisdiction of incorporation or organization)

P.O. Box 80, Gedera 7075002, Israel
(Address of principal executive offices)

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

Title of each class	Name of each exchange on which registered
Ordinary Shares, NIS 0.90 Par Value	NASDAQ Global Market

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Edgar Filing: TAT TECHNOLOGIES LTD - Form 20-F

Indicate the number of outstanding shares of each of the issuer's classes of capital or Common stock as of the close of the period covered by the annual report:

Ordinary Shares, par value NIS 0.90 per share..... 8,874,696
(as of December 31, 2018)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

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 is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued by the Other
International Accounting Standards Board

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

TABLE OF CONTENTS

	<u>Page</u>
<u>INTRODUCTION</u>	1
<u>PART I</u>	4
<u>Item 1. Identity of Directors, Senior Management and Advisers</u>	4
<u>Item 2. Offer Statistics and Expected Timetable</u>	4
<u>Item 3. Key Information</u>	4
A. Selected Financial Data	4
B. Capitalization and Indebtedness	6
C. Reasons for the Offer and Use of Proceeds	6
D. Risk Factors	6
<u>Item 4. Information on the Company</u>	24
A. Business Overview	26
B. Government Regulations	52
C. Property, Plants and Equipment	54
<u>Item 4A. Unresolved Staff Comments</u>	56
<u>Item 5. Operating and Financial Review and Prospects</u>	56
A. Research and Development, Patents and Licenses	85
B. Trend Information	85
C. Off-Balance Sheet Arrangements	85
D. Tabular Disclosure of Contractual Obligations	86
<u>Item 6. Directors, Senior Management and Employees</u>	87
A. Directors and Senior Management	87
B. Board Practices	85
C. Employees	110
D. Share Ownership	111
<u>Item 7. Major Shareholders and Related Party Transactions</u>	112
A. Major Shareholders	112
B. Related Party Transactions	114
C. Interests of Experts and Counsel	114
<u>Item 8. Financial Information</u>	114
A. Consolidated Statements and Other Financial Information	114
B. Significant Changes	114
<u>Item 9. The Offer and Listing</u>	115
A. Offer and Listing Details	115

B.	Plan of Distribution	115
C.	Markets	115
D.	Selling Shareholders	115
E.	Dilution	115
F.	Expense of the Issue	115
<u>Item 10.</u>	<u>Additional Information</u>	116
A.	Share Capital	116
B.	Memorandum and Articles of Association	116
C.	Exchange Controls	120
D.	Taxation	121
E.	Dividends and Paying Agents	137
F.	Statement by Experts	138
G.	Documents on Display	138
H.	Subsidiary Information	139

<u>Item 11.</u>	<u>Quantitative and Qualitative Disclosures about Market Risk</u>	139
<u>Item 12.</u>	<u>Description of Securities Other than Equity Securities</u>	139
<u>PART II</u>		139
<u>Item 13.</u>	<u>Defaults, Dividend Arrearages and Delinquencies</u>	139
<u>Item 14.</u>	<u>Material Modifications to the Rights of Security Holders</u>	139
<u>Item 15.</u>	<u>Controls and Procedures</u>	140
<u>Item 16.</u>	<u>[Reserved]</u>	141
<u>Item 16A.</u>	<u>Audit Committee Financial Expert</u>	142
<u>Item 16B.</u>	<u>Code of Ethics</u>	142
<u>Item 16C.</u>	<u>Principal Accountants Fees and Services</u>	142
<u>Item 16D.</u>	<u>Exemptions from the Listing Standards for Audit Committee</u>	143
<u>Item 16E.</u>	<u>Purchase of Equity Securities By Issuer and Affiliated Purchases</u>	143
<u>Item 16F.</u>	<u>Change in Registrant's Certifying Accountant</u>	143
<u>Item 16G.</u>	<u>Corporate Governance</u>	144
<u>PART III</u>		145
<u>Item 17.</u>	<u>Financial Statements</u>	145
<u>Item 18.</u>	<u>Financial Statements</u>	145
<u>Item 19.</u>	<u>Exhibits</u>	145

INTRODUCTION

TAT Technologies Ltd. is a leading provider of solutions and services to the aerospace and defense industries, focused mainly on two product areas and services: Thermal Management and Power and Actuation. The Company operates four business segments: (i) original equipment manufacturing (“OEM”) of heat transfer solutions and aviation accessories through its Gedera facility; (ii) maintenance repair and overhaul (“MRO”) services for heat transfer components and OEM of heat transfer solutions through its Limco subsidiary; (iii) MRO services for aviation components through its Piedmont subsidiary; and (iv) overhaul and coating of jet engine components through its Turbochrome subsidiary.

TAT targets the commercial aerospace (serving a wide range of types and sizes of commercial and business jets), military aerospace and ground defense sectors. TAT has a global presence with over 500 customers worldwide, including tier one players in their respective markets such as Boeing, Embraer, Lockheed Martin, United Technologies, Pratt & Whitney (a division of United Technologies), the U.S. Armed Forces, and service centers of airlines such as KLM, Lufthansa and others. TAT enjoys a strong reputation among its customers for quality and service-oriented approach.

As a leading provider in its market, TAT’s business is supported by an extensive number of certifications, including from the American, European, British and Chinese civil aviation authorities, as well as leading manufactures such as Boeing and Honeywell International.

TAT employs 598 people and operates in four locations: its largest facility and headquarters in Gedera, Israel (“Gedera”); Limco Airepair Inc. (“Limco”) in Tulsa, Oklahoma; Piedmont Aviation Component Services LLC (“Piedmont”) in Greensboro, North Carolina; and Turbochrome Ltd. (“Turbochrome”) in Kiryat Gat, Israel.

Through its Gedera facility, TAT is an OEM of a broad range of heat transfer solutions, air conditioning systems and other cooling systems used in mechanical and electronic systems on board military and commercial aircraft as well as in ground systems. The Gedera facility is also an OEM for a wide range of aviation accessories and provides limited MRO services for military and commercial customers, mainly for aviation accessories. Gedera is a repair station certified by the Federal Aviation Administration (“FAA”).

Through its Limco subsidiary, TAT provides MRO services for airlines, air cargo carriers, maintenance service centers and the military, primarily for heat transfer components. Limco is a repair station certified by the Federal Aviation Administration ("FAA") and European Aviation Safety Agency ("EASA"). Limco is also an OEM of heat transfer solutions.

Through its Piedmont subsidiary, TAT provides MRO services for aviation components in the area of landing gears, APUs and Machining and Plating services (MPG). Piedmont is an FAA-certified repair station and provides its services to airlines, air cargo carriers, maintenance service centers and, to a lesser extent, the military.

Through its Turbochrome subsidiary, TAT provides MRO services in the area of jet engine overhaul, which includes the overhaul and coating of jet engine components such as turbine vanes and blades, fan blades, variable inlet guide vanes and afterburner flaps. Turbochrome is certified by the FAA and EASA.

In addition, TAT, through its Piedmont subsidiary, holds approximately 5% of the equity securities of First Aviation Services Inc. ("FAvS").

On November 25, 2015, TAT signed an agreement with Russian-based Engineering Holding of Moscow ("Engineering"), to establish a new facility for the provision of MRO services for heat transfer components. The new company, TAT-Engineering LLC, is based in Novosibirsk's Tolmachevo airport. 51% of TAT-Engineering LLC's shares are held by TAT and the remaining 49% are held by Engineering. The new entity was established in January 2016.

TAT's ordinary shares are publicly traded on the NASDAQ Global Market ("NASDAQ") under the symbol "TATT" and on the Tel Aviv Stock Exchange ("TASE") under the symbol "TAT Tech". As used in this annual report, the terms "TAT", "we," "us," and "our" mean TAT Technologies Ltd. and its subsidiaries, unless otherwise indicated.

TAT consolidated financial statements appearing in this annual report are prepared in U.S. dollars and in accordance with generally accepted accounting principles in the United States ("U.S. GAAP"). All references in this annual report to "dollars" or "\$" are to U.S. dollars and all references in this annual report to "NIS" are to New Israeli Shekels.

Statements made in this annual report concerning the contents of any contract, agreement or other document are summaries of such contracts, agreements or documents and are not complete descriptions of all of their terms. If we filed any of these documents as an exhibit to this annual report or to any previous filing with the Securities and Exchange Commission ("SEC"), you may read the document itself for a complete recitation of its terms.

Except for the historical information contained in this annual report, the statements contained in this annual report are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, as amended, with respect to our business, financial condition and results of operations. Such forward-looking statements reflect our current view with respect to future events and financial results. Statements which use the terms "believe," "expect," "plan," "intend," "estimate," and similar expressions are intended to identify forward-looking statements. We remind readers that forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors and involve known and unknown risks that could cause the actual results, performance, levels of activity, our achievements, or industry results, to be materially different from any future results, performance, levels of activity, our achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Except as required by applicable law, including the securities laws of the United States, we undertake no obligation to publicly release any update or revision to any forward-looking statements to reflect new information, future events or circumstances, or otherwise after the date hereof. We have attempted to identify significant uncertainties and other factors affecting forward-looking statements in the Risk Factors section that appears in Item 3D. "Key Information - Risk Factors."

PART I

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

A. Selected Financial Data

TAT's selected historical information is derived from the audited consolidated financial statements of TAT as of December 31, 2018 and 2017 and for each of its fiscal years ended December 31, 2018, 2017 and 2016, which are included elsewhere in this annual report, and have been prepared in accordance with U.S. GAAP. The selected financial data as of December 31, 2016, 2015 and 2014 and for the years ended December 31, 2015 and December 31, 2014 is derived from audited consolidated financial statements of TAT not included in this annual report, which have been prepared in accordance with U.S. GAAP.

The selected consolidated financial data set forth below should be read in conjunction with and are qualified by reference to Item 5, "Operating and Financial Review and Prospects," and our consolidated financial statements and notes thereto included elsewhere in this annual report.

Edgar Filing: TAT TECHNOLOGIES LTD - Form 20-F

Income Statement Data:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands, except share and per share data)				
Revenues:					
Products	\$23,151	\$36,053	\$30,431	\$31,339	\$31,363
Services	70,027	70,474	65,363	54,268	49,363
Total revenues	93,178	106,527	95,794	85,607	80,726
Cost of revenues:					
Products	23,807	28,096	23,788	24,466	23,616
Services	60,980	57,987	52,969	47,476	40,906
Total cost of revenues	84,787	86,083	76,757	71,942	64,522
Gross profit	8,391	20,444	19,037	13,665	16,204
Operating expenses:					
Research and development, net	553	731	1,140	890	1,070
Selling and marketing	4,913	4,974	3,876	2,903	3,203
General and administrative	8,559	9,409	10,023	8,469	8,123
Other expenses (income)	(4)	53	(138)	631	(11)
Gain on bargain purchase	-	-	-	(4,833)	-
	14,021	15,167	14,901	8,060	12,385
Operating income (loss) from continuing operations	(5,630)	5,277	4,136	5,605	3,819
Financial expenses, net	(102)	(338)	(154)	(349)	(1,294)
Income (loss) from continuing operations before taxes on income	(5,732)	4,939	3,982	5,256	2,525
Taxes on income (tax benefit)	(1,464)	2,333	3,865	644	1,360
Income (loss) from continuing operations after taxes on income (tax benefit)	(4,268)	2,606	117	4,612	1,165
Share in results of equity investment of affiliated companies	(140)	(210)	(55)	1,237	267
Net income (loss) from continuing operations	(4,408)	2,396	62	5,849	1,432
Net income (loss) attributable to TAT Technologies' shareholders	\$(4,408)	\$2,396	\$62	\$5,849	\$1,432
Basic and diluted net income (loss) per share:					
Net income (loss) from continuing operations per share attributable to controlling interest	(0.5)	0.27	0.01	0.66	0.16
	\$(0.5)	\$0.27	\$0.01	\$0.66	\$0.16
Weighted average number of shares used in computing:					
Basic net income (loss) per share	8,864,885	8,848,028	8,828,444	8,808,344	8,805,495
Diluted net income (loss) per share	8,864,885	8,909,072	8,830,764	8,810,689	8,826,542
Cash dividend per share	\$-	\$0.34	\$0.34	\$-	\$0.23

Balance Sheet Data:

	As of December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Working capital	\$62,778	\$67,042	\$66,683	\$70,813	\$70,775

Edgar Filing: TAT TECHNOLOGIES LTD - Form 20-F

Total assets	103,287	111,995	111,977	109,583	99,176
Long-term liabilities, excluding current maturities	4,312	5,742	5,083	3,322	2,689
Shareholders' equity	\$84,294	\$88,574	\$88,652	\$91,424	\$85,541

5

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Investing in our ordinary shares involves certain risks and uncertainties. You should carefully consider the risks and uncertainties described below before investing in our ordinary shares. Our business, prospects, financial condition and results of operations could be adversely affected due to any of the following risks. In that case, the value of our ordinary shares could decline, and you could lose all or part of your investment.

Risks Related to Our Business and Our Industry

The aerospace industry is subject to significant regulation and oversight, and TAT and its subsidiaries may incur significant fines, penalties and costs if TAT and its subsidiaries do not comply with these regulations.

The aerospace industry is highly regulated in the United States and elsewhere. To manufacture, sell and service parts used in aircrafts, TAT and its subsidiaries must be certified or accepted by the FAA, EASA, the United States Department of Defense and comparable agencies in other countries and by leading original equipment manufacturers (“OEMs”). If any of our material certifications, authorizations or approvals are revoked or suspended, then the operations of TAT or its subsidiaries, as the case may be, will be significantly curtailed and TAT and its subsidiaries could be subjected to significant fines and penalties. In the future, new and more demanding government regulations may be adopted or industry oversight may be increased. TAT and its subsidiaries may have to incur significant additional costs to achieve compliance with new regulations or to reacquire a revoked or suspended license or approval, which could materially reduce profitability.

TAT competes with a number of established companies in all aspects of TAT’s business, many of which have significantly greater resources or capabilities than TAT.

TAT’s major competitors in the area of OEM of heat transfer solutions and aviation accessories, are other OEMs who manufacture heat transfer solutions. These include:

- (i) Manufacturers based in the United States, such as the Hughes-Treitler division of Ametek Inc., Lytron Inc., Niagara Thermal, Hamilton Sundstrand, Honeywell International, and Triumph Thermal Systems;

(ii) Manufacturers based in Europe such as I.M.I. Marston Ltd., a subsidiary of Hamilton Sundstrand and Liebherr-Aerospace Toulouse S.A.; and

(iii) Manufacturers based in Asia such as Sumitomo Precision Products from Japan.

Many of TAT's competitors are far larger, have substantially greater resources than TAT, including technical, financial, research and development, marketing and distribution capabilities, and enjoy greater market recognition. These competitors may be able to achieve greater economies of scale and may be less vulnerable to price competition than TAT. In addition, some of those companies are considered to be tier one suppliers offering customers a wider range of systems and products, in addition to heat transfer solutions, as a bundle. TAT may not be able to offer its products as part of integrated systems to the same extent as its competitors or successfully develop or introduce new products that are more cost effective or offer better performance than those of its competitors. Failure to do so could adversely affect TAT's business, financial condition and results of operations.

TAT's major competitors in the area of MRO services for heat transfer components are the service divisions of OEMs, including Honeywell-Lori, Honeywell Secan, Honeywell Singapore, Hamilton Malaysia, Hamilton Maastricht, and Liebherr Aerospace Saline, in addition to the in-house maintenance services of various commercial airlines and other independent service providers, including Triumph Accessory Services, Drake Air – Ametek, American Cooler Service – Aviation Technical Services, Lufthansa Technik and Elite Aerospace – Meggitt.

TAT's major competitors in the area of MRO services for aviation components, landing gears and APUs, are the service divisions of OEMs, the in-house maintenance services of various commercial airlines and other independent service providers, including Standard Aero Group Inc., Aerotech International Inc., Honeywell International, AAR Corp., Safran, Liebherr, Turbine Aero, Hawker Pacific and APRO.

TAT's major competitors in the area of overhaul and coating of jet engine components are the service divisions of OEMs, the in-house maintenance services of various commercial airlines and other independent service providers, including Safran, General Electric, GKN, PAS and others. With respect to masking materials, TAT's major competitors are APV Coatings, Praxair and others.

Competition in the MRO market is based on price, quality, engineering solutions, breadth of services, and the ability to perform repairs and overhauls rapidly. A number of our competitors have inherent competitive advantages. For example, we compete with the service divisions of large OEMs which are able to derive significant brand recognition from their OEM manufacturing activities. We also compete with the in-house service divisions of large commercial airlines where there is a strong incentive for an airline to fully-utilize the services of its maintenance employees and facilities.

Further, TAT's competitors may have additional competitive advantages, such as:

- The ability to adapt faster to changes in customer requirements and industry conditions or trends;
- Greater access to capital;
- Stronger relationships with customers and suppliers;
- Greater name recognition;
- Access to superior technology and greater marketing resources;
- The ability to offer complete systems in addition to components; and
- The ability to bundle heat transfer components and solutions and other aircraft components.

If TAT is unable to overcome these competitive disadvantages, then TAT's business, financial condition and results of operations would be adversely affected.

TAT derives a material share of its revenues from few major customers. If TAT loses any of these customers or they reduce the amount of business they do with TAT, TAT's revenues may be seriously affected.

Five customers accounted for approximately 18.2%, 19.7% and 20.2% of TAT's revenues for the years ended December 31, 2018, 2017 and 2016, respectively. TAT's major customers may not maintain the same volume of business with TAT in the future. If TAT loses any of these customers or they reduce the amount of business they do with TAT, TAT's revenues may be seriously affected.

A part of the revenues of TAT and its subsidiaries are from contracts with the U.S. and Israeli governments and are subject to special risks. A loss of all, or a major portion, of these revenues from government contracts could have a material adverse effect on TAT's operations.

A portion of the revenues of TAT and its subsidiaries are from contracts with the U.S. and Israeli governments. Sales to the U.S. and Israeli governments accounted for approximately 4.1%, 5.4% and 6.9% of TAT's revenues on a consolidated basis for the years ended December 31, 2018, 2017 and 2016, respectively.

Business with the U.S. and Israeli governments, as well as with the governments of other countries, is subject to unique risks which do not exist when doing business with other private parties. These risks include the ability of the governmental authorities to unilaterally:

- Suspend TAT or any of its subsidiaries from receiving new contracts pending resolution of alleged violations of procurement laws or regulations;
- Terminate existing contracts, with or without cause, at any time;
- Condition the receipt of new contracts on conditions which are beyond the control of TAT;
- Reduce the value of existing contracts;
- Audit the contract-related costs and fees of TAT and its subsidiaries, including allocated indirect costs; and
- Control or prohibit the export of products of TAT and its subsidiaries.

Also, military and defense budget cuts may result in reduced demand for the products and manufacturing services of TAT and its subsidiaries. Smaller budgets could result in reduction in the business revenues of TAT and its subsidiaries.

If TAT and its subsidiaries do not receive the governmental approvals necessary for the export of their products, TAT's revenues may decrease. Similarly, if TAT's suppliers and partners do not receive their government approvals necessary to export their products or designs to TAT, TAT's revenues may decrease.

Under Israeli law, the export of certain products and know-how of TAT and its subsidiaries is subject to approval by the Israeli Ministry of Defense. Prior to initiating sales proposals for the export of these products and know-how and to the actual shipment of such products or know-how, TAT and its subsidiaries must obtain permits from the Ministry of Defense. TAT and its subsidiaries may not be able to receive in a timely manner, or at all, all the required permits for which they may apply in the future.

Similarly, many countries have laws according to which the export of certain military products, technical designs and spare parts require the prior approval of, or export license from, their governments. This process also applies to our partners and suppliers. If TAT and its subsidiaries or its partners and suppliers are unable to receive all the required permits and/or licenses in a timely manner, or at all, TAT's revenues may decrease.

TAT depends on a limited number of suppliers of components for certain of its products and if TAT or any of its subsidiaries are unable to obtain these components when needed, they would experience delays in manufacturing their products and TAT's financial results could be adversely affected.

TAT relies on a limited number of key suppliers for parts for certain of its OEM activities and MRO services. Some of these suppliers are currently the sole source of one or more components upon which TAT is dependent. For example, Honeywell International Inc. is a key supplier to TAT of APU spare parts and of certain other components used by TAT and its subsidiaries for OEM activities and in the provision of MRO services. TAT's subsidiary, Piedmont, is a Honeywell licensed Authorized Repair Center for APUs under two separate agreements, for military and commercial applications. The military agreement with Honeywell expired on December 15, 2018 and was extended until March 31, 2019. The parties have yet to reach an understanding on extending the agreement.

The commercial agreement with Honeywell is due to expire on December 15, 2019. At this stage, it is too early to estimate if such agreement will be extended.

Also, Piedmont is a provider of services on Safran and Liebherr Landing Gear systems, to do so, Piedmont is dependent on these OEM's to provide parts and engineering support.

Suppliers of some of these components require TAT to place orders with significant lead time to assure supply in accordance with TAT's requirements. A delay in the supply of these components can significantly delay the delivery of our products and services. If TAT were to engage in a commercial dispute with or be unable to obtain adequate supplies of parts from these suppliers at commercially reasonable prices or required lead time, TAT could experience delays in manufacturing and its financial results could be adversely affected. Increased costs associated with supplied materials or components could increase TAT's costs and reduce TAT's profitability if TAT is unable to pass these cost increases on to its customers.

TAT may face increased costs and a reduced supply of raw materials. TAT may not be able to recoup future increases in the cost of raw materials required for its operations through price increases for its products.

In recent years, the cost of raw materials and components used by TAT has fluctuated significantly due to market and industry conditions. TAT may not be able to recoup future increases in the cost of raw materials or component cost through price increases for its products and services. If TAT is unable to obtain the raw materials required for its operation, TAT could experience delays or disruptions in the provision of its services and its financial results could be adversely affected.

TAT may face significant risks in the management of its inventory, while failure to effectively manage its inventory levels may result in supply imbalances that could harm its business

We maintain an inventory of exchangeable units of heat transfer solutions, aviation accessories, aviation components, APUs, landing gears, engine blades and coating materials and other spare parts related to our products and services in various locations, including with third party logistics providers. Due to the long lead time of our suppliers and manufacturing cycles, we need to forecast demand and commit significant resources towards these inventories. As such, we are subject to significant risks in managing the inventory needs of our business, including estimates of the appropriate demand across our products. Should actual market conditions differ from our estimates, our future results of operations could be materially adversely affected. In the future, we may be required to record write-downs of finished products and materials on-hand as a result of future changes in our sales forecasts.

Our backlog of projects under contract is subject to unexpected adjustments, delays in payments and cancellations.

Our backlog includes purchase orders received from our customers for our products or services and our estimation of the maximum potential revenues that are expected to be derived from frame agreements with our customers. There is no legal obligation from the customer to purchase our products or services under those frame agreements. In addition, we use estimations to evaluate the potential revenue from these agreements. From time to time, for reasons beyond our control, projects are delayed, scaled back, suspended or cancelled, or the customer delays making payments, which may adversely affect the revenue, profit and cash flow that we ultimately receive from contracts reflected in our backlog.

TAT faces special risks from international sales operations which may have a material adverse effect on TAT's business, operating results and financial condition.

In the years ending December 31, 2018, 2017 and 2016, approximately 93%, 91% and 92% of TAT's sales, respectively, resulted from TAT's operations out of Israel. This revenue concentration is subject to various risks, including:

- Governmental embargoes or foreign trade restrictions;
- Changes in U.S. and foreign governmental regulations;
- Changes in foreign exchange rates;
- Tariffs;
- Other trade barriers;
- Political, economic and social instability; and
- Difficulties collecting accounts receivable.

Accordingly, TAT and its subsidiaries may encounter significant difficulties in connection with the sale of their products in international markets.

TAT may engage in future acquisitions that could dilute TAT's shareholders' equity and harm TAT's business, results of operations and financial condition.

TAT has pursued, and will continue to pursue, growth opportunities through organic growth as well as acquisition of businesses, products and technologies. For example, in October 2015, TAT completed the acquisition of Turbochrome for approximately \$3.5 million, and an additional earn-out payment of \$ 0.5 million during 2016.

TAT is unable to predict whether or when any prospective acquisition will be completed. TAT may not be able to successfully identify suitable acquisition candidates, complete acquisitions, integrate the acquired businesses into its operations, or expand into new markets. The process of integrating an acquired business may be prolonged due to unforeseen difficulties and may require a disproportionate amount of TAT's resources, including management attention. Furthermore, once integrated, acquisitions may not achieve comparable levels of revenues, profitability or productivity as TAT's existing business or otherwise perform as expected. The occurrence of any of these events could harm TAT's business, financial condition or results of operations. Future acquisitions may require substantial capital resources, which may require TAT to seek additional debt or equity financing.

Future acquisitions by TAT could result in the following, any of which could materially harm TAT's results of operations or the price of TAT's ordinary shares:

- Issuance of equity securities that would dilute TAT's shareholders' percentages of ownership;
- Large one-time write-offs;
- The incurrence of debt and contingent liabilities;
- Difficulties in the assimilation and integration of operations, personnel, technologies, products and information systems of the acquired companies;
- Diversion of management's attention from other business activities and concerns;
- Contractual disputes;
- Risks of entering geographic and business markets in which TAT has no or only limited prior experience; and
- Potential loss of key employees of acquired organizations.

Our strategic partnerships and relationships carry inherent business risks.

We may participate in strategic partnerships and joint ventures in a number of countries. For example, in November 2015, we signed a joint venture agreement with Russian-based Engineering, to establish a new facility for the provision of MRO services for heat transfer components in Russia and the Commonwealth of Independent States (“CIS”). The new company, TAT-Engineering LLC, is based in Novosibirsk’s Tolmachevo airport.

Our actions with respect to these affiliated companies may be restricted to some degree by shareholder agreements entered into with our strategic partners. Our business, financial condition, results of operations and prospects may be materially harmed if disagreements develop with our partners. Our ability to withdraw funds and dividends from these entities may depend on the consent of partners. If one of our strategic partners becomes subject to investigation, sanctions or liability, TAT might be adversely affected. Furthermore, strategic partnerships in emerging markets are accompanied by risks inherent to those markets, such as an increased probability of a partner defaulting on obligations or losing a partner with important insights in that region. Strategic partnerships in emerging markets are subject to greater risks than strategic partnerships in more developed markets, including significant political, legal and economic risks and risks related to fluctuations in currencies. For example, the value of the Russian currency, has declined significantly in response to political and economic issues since December 31, 2013, and may continue to decline. The significant depreciation of the Russian ruble against the U.S. dollar may negatively impact our results of operations related to our joint venture in Russia.

Rapid technological changes may adversely affect the market acceptance of TAT's products.

The aerospace and defense markets in which TAT competes are subject to technological changes, introduction of new products, changes in customer demands and evolving industry standards. For example, new materials, new structures and 3D printing – a technology based on the principle of joining thin layers of materials, in horizontal cross-section, to build up a real, three-dimensional object from a digital model – may enable the manufacturing of high-quality and new characterization heat exchangers in serial production with a better return of value. The future success of TAT will depend upon its ability to keep pace with technological developments and to timely address the increasingly sophisticated needs of its customers by supporting existing and new technologies and by developing enhancements to its current products and by introducing new ones.

TAT has fixed-price contracts with some of its customers and TAT bears the risk of costs in excess of its estimates. In addition, TAT may not be able to pass on increased costs to its customers.

TAT has entered into multi-year, fixed-price contracts with some of its MRO and OEM customers. Pursuant to these contracts, TAT realizes all the benefits or costs resulting from any increases or decreases in the cost of providing services and products to these customers. Several of TAT's contracts do not allow TAT to recover for increases in raw material prices, taxes or labor costs, while other contracts may permit, to a limited extent, periodic price adjustments. Any increase in these costs could increase the cost of operating our business and reduce our profitability. Factors such as inaccurate pricing and increases in the cost of labor, materials or overhead may result in cost over-runs and losses on those agreements. TAT may not succeed in obtaining customer approval to re-price a particular product and may not be able to recoup previous losses resulting from incomplete or inaccurate engineering data. In addition, as costs increase, TAT may not be able to pass on such increased costs to other customers. This could materially impact TAT's profitability.

TAT depends on its key executives; it may not be able to hire and retain additional key employees or successfully integrate new members of its team; the loss of key employees could have a material adverse effect on TAT's business.

TAT's success depends to a large extent on the experience and expertise of its senior management. Any member of TAT's senior management may choose to end his or her employment with TAT and seek employment with others for any reason. The loss of the expertise of TAT's senior management through death, disability or an employee's decision to end his or her employment could have a material and adverse effect on our business, financial condition and results of operations. TAT is not the beneficiary of life or disability insurance covering any of its senior management, key employees or other personnel.

TAT depends on its manufacturing and MRO facilities and any material damage to these facilities may adversely impact TAT's operations.

TAT's results of operations depend in large part on its ability to provide prompt and efficient service to its customers upon receipt of orders, either the manufacture and delivery of OEM products or the provision of MRO services. As a result, any material disruption of TAT's day-to-day operations could have a material adverse effect on its business, customer relations and profitability. TAT relies on its Gedera and Kiryat Gat, Israel, Kernersville and Greensboro, North Carolina and Tulsa, Oklahoma facilities for the manufacture of its OEM products and provision of its MRO services. A war or terrorist act, fire, flood, earthquake or other disaster or condition that significantly damaged or destroyed any of these facilities would have a material adverse effect on the operations of TAT.

TAT uses equipment that is not easily repaired or replaced, and therefore material equipment failures could cause TAT or its subsidiaries to be unable to meet quality or delivery expectations of its customers.

Many of TAT's service and manufacturing processes are dependent on equipment that is not easily repaired or replaced. As a result, unexpected equipment failures could result in production delays or the manufacture of defective products. TAT's ability to meet its customers' expectations with respect to on-time delivery of repaired components or quality OEM products is critical. Failure by TAT to meet the quality or delivery expectations of its customers could lead to the loss of one or more of its significant customers.

TAT may fail to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002.

The Sarbanes-Oxley Act of 2002 imposes certain duties on TAT and its executives and directors. TAT's efforts to comply with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX") governing internal controls and procedures for financial reporting have resulted in increased general and administrative expenses and a diversion of management time and attention. TAT expects these efforts to require the continued commitment of significant resources. TAT may identify material weaknesses or significant deficiencies in its assessments of its internal controls over financial reporting. Failure to maintain effective internal controls over financial reporting could result in investigation or sanctions by regulatory authorities and could have a material adverse effect on TAT's operating results, investor confidence in TAT's reported financial information and the market price of TAT's ordinary shares. Our independent registered public accounting firm is not required to and has not performed an audit of our internal controls over financial reporting as of December 31, 2018.

TAT has potential exposure to liabilities arising under environmental laws and regulations.

TAT's business operations and facilities are subject to various federal, state, and local laws and regulations related to the environment, including, but not limited to, regulations that govern the discharge of pollutants and hazardous substances into the air and water and the handling, storage and disposal of such materials. Compliance with such laws as they relate to the handling, storage and disposal of hazardous substances is a significant obligation for TAT at each of its facilities. If it fails to comply with these and other environmental-related laws and regulations, TAT would be subject to serious consequences, including fines and other sanctions, and limitations on its operations due to changes to, or revocations of, the environmental permits applicable to its facilities. The adoption of new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new cleanup requirements could require TAT to incur costs and become subject to new or increased liabilities that could increase TAT's operating costs and adversely affect the manner in which we conduct our business.

Under certain environmental laws, liability associated with an investigation or remediation of hazardous substances can arise from a broad range of properties, including properties currently or formerly operated by TAT or any of its predecessors, as well as properties to which TAT sent hazardous substances or wastes for treatment, storage, or disposal. Costs and other obligations can arise from claims for toxic torts, natural resource and other damages, as well as the investigation and clean-up of contamination at such properties. Under certain environmental laws, such liability may be imposed jointly and severally, so TAT may be responsible for more than its proportionate share and may even be responsible for the entire liability at issue. The extent of any such liability can be difficult to predict.

TAT is exposed to potential liabilities arising from product liability and warranty claims.

TAT is exposed to potential liabilities for personal injury or death as a result of the failure of an aircraft component that was designed, manufactured, serviced or supplied by TAT. TAT believes that, in an effort to improve operating margins, some customers have delayed the replacement of parts beyond their recommended lifetime, which may undermine aircraft safety and increase the risk of liability of TAT and its subsidiaries.

If any of our products are defective, we could be required to redesign or recall those products or pay substantial damages or warranty claims. Such an event could result in significant expenses, disrupt sales and damage our reputation and that of our products and services. There can be no assurance that TAT will not experience material product liability losses in the future, that it will not incur significant costs to defend such claims, that, although TAT maintains product liability insurance, its insurance coverage will be adequate if claims were to arise or that it would be able to maintain insurance coverage in the future at an acceptable cost. A successful claim brought against TAT or its subsidiaries in excess of its available insurance coverage may have a material adverse effect on TAT's business.

In addition, contractual disputes over warranties can arise in the ordinary course of business. TAT may be subject to requests from customers for cost sharing or pricing adjustments as a part of their commercial relationships, even though the customers had previously agreed to bear these risks.

Significant disruptions of our information technology systems or breaches of our data security could adversely affect our business.

A significant invasion, interruption, destruction or breakdown of our information technology, or IT, systems and/or infrastructure by persons with authorized or unauthorized access could negatively impact our business and operations. We could also experience business interruption, information theft and/or reputational damage from cyber-attacks, which may compromise our systems and lead to data leakage either internally or at our third-party providers. Both data that has been inputted into our main IT platform, which covers records of transactions, financial data and other data reflected in our results of operations, as well as data related to our proprietary rights (such as research and development, and other intellectual property-related data), are subject to material cyber security risks. To date, we are not aware that we have experienced any loss of, or disruption to, material information as a result of any such malware or cyber-attack.

TAT's activity in Israel may be adversely affected by a change in the exchange rate of the NIS against the dollar. Because exchange rates between the NIS and the dollar fluctuate continuously, exchange rate fluctuations, particularly larger periodic devaluations, may have an impact on TAT's profitability and period to period comparisons of TAT's results.

TAT's financial statements are stated in dollars, while a portion of TAT's expenses in Israel, primarily labor expenses, are incurred in NIS and a portion of its revenues are quoted in NIS and in Euro. Additionally, certain assets, as well as a portion of TAT's liabilities, are denominated in NIS. Because exchange rates between the NIS and the dollar fluctuate continuously, exchange rate fluctuations, particularly larger periodic devaluations, may have an impact on TAT's profitability and period to period comparisons of TAT's results. TAT's results may be adversely affected by the devaluation of the NIS in relation to the dollar (or if such devaluation is on a lagging basis), if TAT's revenues in NIS are higher than TAT's expenses in NIS and/ or the value of TAT's assets in NIS are higher than TAT's liabilities in NIS. Alternatively, TAT's results may be adversely affected by an appreciation of the NIS in relation to the dollar (or if such appreciation is on a lagging basis), if TAT's expenses in NIS are higher than TAT's revenues in NIS and/or TAT's liabilities in NIS are higher than TAT's assets in NIS. From time to time, we enter into hedging transactions to attempt to limit the impact of foreign currency fluctuations. However, the protection provided by such hedging transactions may be partial and leave certain exchange rate-related losses and risks uncovered. Therefore, our business and profitability may be harmed by such exchange rate fluctuations.

Risk Factors Related to Our Ordinary Shares

TAT's share price has been volatile in the past and may decline in the future.

TAT's ordinary shares have experienced significant market price and volume fluctuations in the past and may experience significant market price and volume fluctuations in the future, in response to factors such as the following, some of which are beyond TAT's control:

- Quarterly variations in TAT's operating results;
- Operating results that vary from the expectations of securities analysts and investors;
- Changes in expectations as to TAT's future financial performance, including financial estimates by securities analysts and investors;
- Announcements of technological innovations or new products by TAT or TAT's competitors;
- Announcements by TAT or TAT's competitors of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- Announcements by third parties of significant claims or proceedings against us;
- Additions or departures of key personnel;
- Future sales of TAT's ordinary shares (by our controlling shareholders or others);
- De-listing of TAT's shares from NASDAQ and/or from the TASE;
- Stock market price and volume fluctuation;
- Legal proceedings against TAT's controlling shareholders; and
- Regulatory actions by securities authorities which impacts TAT's interaction with securities analysts and institutional investors.

Equity stock markets can undergo extreme price and volume fluctuations. Market fluctuations, as well as political and economic conditions, such as a recession, interest rate or currency rate fluctuations and political events or hostilities in or surrounding Israel, could adversely affect the market price of TAT's ordinary shares.

In the past, securities class action litigation has often been brought against companies following periods of volatility in the market price of their securities. TAT may be the target of similar litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources both of which could have a material adverse effect on TAT's business and results of operations.

Substantial future sales of TAT's ordinary shares by TAT's principal shareholders may depress TAT's share price.

TAT's principal shareholders, FIMI Israel Opportunity FIVE, Limited Partnership and FIMI Opportunity V, L.P. ("FIMI" or the "FIMI Funds"), beneficially own together 59.21% of TAT's outstanding shares. If FIMI sells a substantial number of TAT's ordinary shares or if the perception exists that FIMI may sell a substantial number of TAT's ordinary shares, the market price of TAT's ordinary shares may fall. Any substantial sales of TAT's shares in the public market may also impede our ability to sell equity or equity-related securities in the future at a time, in a place and on terms TAT deems appropriate.

Risks Relating to Our Location in Israel

Because TAT has significant operations in Israel, TAT may be subject to political, economic and other conditions affecting Israel that could increase TAT's operating expenses and disrupt TAT's business.

TAT is incorporated under the laws of the State of Israel. TAT's executive offices, its research and development facilities and main manufacturing plant are also located in Israel. As a result, political, economic and military conditions affecting Israel directly influence TAT. Any major hostilities involving Israel, a full or partial mobilization of reserve forces of the Israeli army, the interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel could have a material adverse effect on TAT's business, financial condition and results of operations.

Since its establishment in 1948, Israel and its Arab neighbors have engaged in a number of armed conflicts. A state of hostility, varying from time to time in intensity and degree, has led to security and economic challenges for Israel. Major hostilities between Israel and its neighbors may hinder Israel's international trade and lead to economic downturn. This, in turn, could have a material adverse effect on TAT's operations and business. In recent years, there has been an escalation in violence among Israel, Hamas (which controls the Gaza Strip), the Palestinian Authority (which controls in the West Bank) and other groups, as well as extensive hostilities along Israel's border with the Gaza Strip such as the missiles fired from the Gaza Strip into Israel during the summer of 2014. Ongoing violence between Israel and the Palestinians as well as tension between Israel and its Arab neighbors and Iran may have a material adverse effect on TAT's business, financial conditions and results of operations.

Furthermore, there are a number of countries, primarily Arab and Muslim countries, that restrict or frown upon business with Israel or Israeli companies, and TAT is precluded from marketing its products to these countries. Restrictive laws or policies directed towards Israel or Israeli companies may have an adverse impact on TAT's operations, TAT's financial results or the expansion of TAT's business.

TAT's results of operations may be negatively affected by the obligation of its personnel to perform military service.

Many of TAT's employees and some of TAT's directors and senior management based in Israel are obligated to perform annual reserve duty in the Israel Defense Forces ("IDF") and may be called for active duty under emergency circumstances at any time. If a military conflict or war arises, these individuals could be required to serve in the military for extended periods of time. TAT's operations could be disrupted by the absence of one or more of its senior management, key employees or a significant number of other employees for a significant period due to military service. Any such disruption in TAT's operations could adversely affect TAT's business.

Your rights and responsibilities as a shareholder are governed by Israeli law and may differ in some respects from the rights and responsibilities of shareholders under U.S. law.

TAT is incorporated under Israeli law. The rights and responsibilities of holders of TAT's ordinary shares are governed by TAT's memorandum of association, articles of association and by Israeli law. These rights and responsibilities differ in some respects from the rights and responsibilities of shareholders in typical U.S. corporations. In particular, each shareholder of an Israeli company has a duty to act in good faith and in a customary manner in exercising his or her rights and fulfilling his or her obligations toward the company and other shareholders and to refrain from abusing his power in the company, including, among other things, in voting at the general meeting of shareholders on certain matters. Israeli law provides that these duties are applicable in shareholder votes on, among other things, amendments to a company's articles of association, increases in a company's authorized share capital, mergers and interested party transactions requiring shareholder approval. In addition, a controlling shareholder of an Israeli company, or a shareholder who knows that he or she possesses the power to determine the outcome of a shareholder vote or who has the power to appoint or prevent the appointment of a director or officer in the company, has a duty of fairness toward the company. However, Israeli law currently does not define the substance of this duty of fairness. Because Israeli corporate law has undergone extensive revision in recent years, there is relatively little case law available to assist in understanding the implications of these provisions that govern shareholder behavior.

Israeli law may delay, prevent or make difficult an acquisition of TAT, which could prevent a change of control and, therefore, depresses the price of TAT's shares.

Israeli corporate law regulates mergers, requires tender offers for acquisitions of shares above specified thresholds, requires special approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to these types of transactions. Furthermore, Israeli tax considerations may make potential transactions unappealing to TAT or to some of TAT's shareholders. These provisions of Israeli law may delay, prevent or make difficult an acquisition of TAT, which could prevent a change of control and therefore depress the price of TAT's shares.

Investors and TAT's shareholders generally may have difficulties enforcing a U.S. judgment against TAT, TAT's executive officers and directors or asserting U.S. securities laws claims in Israel.

TAT is incorporated in Israel and the majority of TAT's executive officers and directors reside outside the United States. Service of process upon them may be difficult to effect within the United States. Furthermore, many of TAT's assets and most of the assets of TAT's executive officers and directors are located outside the United States. Therefore, a judgment obtained against TAT or certain of its executive officers and directors in the United States, including one based on the civil liability provisions of the U.S. federal securities laws, may not be collectible in the United States and may not be enforced by an Israeli court. It also may be difficult for you to assert U.S. securities law claims in original actions instituted in Israel. However, subject to certain time limitations and other conditions, Israeli courts may enforce final judgments of U.S. courts for liquidated amounts in civil matters, including judgments based upon the civil liability provisions of those and similar acts.

As a foreign private issuer whose shares are listed on NASDAQ, TAT may follow certain home country corporate governance practices instead of certain NASDAQ requirements.

As a foreign private issuer whose shares are listed on NASDAQ, TAT is permitted to follow certain home country corporate governance practices instead of certain requirements of the NASDAQ Marketplace Rules. A foreign private issuer that elects to follow a home country practice instead of such requirements must submit to NASDAQ in advance a written statement from an independent counsel in such issuer's home country certifying that the issuer's practices are not prohibited by the home country's laws. In addition, a foreign private issuer must disclose in its annual reports filed with the SEC or on its website each such requirement that it does not follow and describe the home country practice followed by the issuer instead of any such requirement. For example, Israel's corporate governance or laws require that TAT obtain shareholder approval for certain dilutive events, such as for the establishment or amendment of certain equity-based compensation plans, an issuance that will result in a change of control of TAT, certain transactions other than a public offering involving issuances of a 20% or more interest in TAT and certain acquisitions of the stock or assets of another company, which are not required by NASDAQ.

Item 4. Information on the Company

History and Development of TAT

TAT was incorporated under the laws of the State of Israel in April 1985 under the name Galaxy Graphics Ltd. TAT changed its name to Galagraph Ltd. in August 1986 and to TAT Technologies Ltd. in May 1992. TAT is a public limited liability company under the Israeli Companies Law 1999-5759, ("Israeli Companies Law"), and operates under this law and associated legislation. TAT's registered offices and principal place of business are located at Re'em Industrial Park, Neta Boulevard, Bnei Ayish, Gedera 70750002 Israel and its telephone number is +972-8-826-8500. TAT's website is www.tat-technologies.com. The information on TAT'S website is not incorporated by reference into this annual report.

TAT was founded in 1985 to develop the computerized systems business of its then parent company, TAT Industries Ltd. ("TAT Industries"), a publicly-held Israeli corporation then engaged in the manufacture and sale of aeronautical equipment. In December 1991, TAT acquired the heat exchange operations of TAT Industries and in 2000, TAT purchased the remaining operations of TAT Industries relating to the manufacture and maintenance of aviation accessories and leased certain of its properties.

In March 1987, TAT completed the initial public offering of its securities in the United States. TAT was listed on the NASDAQ Global Market (then known as the NASDAQ National Market) from its initial public offering until July 1998 when the listing of TAT's ordinary shares was transferred to the NASDAQ Capital Market. On June 24, 2009, TAT's ordinary shares resumed trading on the NASDAQ Global Market. Since August 2005 TAT's shares have been traded also on the TASE.

Today TAT is a provider of a variety of solutions and services to the commercial and military aerospace and ground defense industries through its Gedera facility, as well as through its subsidiaries, Limco and Piedmont in the U.S. (Limco and Piedmont are held by TAT through Limco-Piedmont, Inc. ("Limco-Piedmont")) and Turbochrome in Kiryat Gat, Israel.

In 1993, TAT acquired Limco Airepair, Inc. ("Limco"). Located in Tulsa, Oklahoma, Limco's FAA-certified repair station provides MRO services for airlines, air cargo carriers, maintenance service centers and the military, especially for heat transfer components. In addition to its MRO services, Limco is an OEM of heat transfer solutions for aircraft and system manufacturers and other selected related products.

In 2005, Limco acquired Piedmont, a company certified by the FAA to perform MRO services of APUs and landing gears. Located in Greensboro, North Carolina, Piedmont's FAA-certified repair station provides MRO services for airlines, air cargo carriers, maintenance service centers and the military, especially for landing gears and APUs. In July 2007, Limco-Piedmont completed an initial public offering of its common stock and Limco-Piedmont's shares were listed on the NASDAQ Global Market (symbol: LIMC) until July 2, 2009, when TAT acquired all of the publicly held shares of Limco-Piedmont (approximately 32% of Limco-Piedmont's total shares) in a stock for stock merger. As a result of such merger, Limco-Piedmont again became a wholly-owned subsidiary of TAT.

Following a series of transactions occurring between March 2008 and March 2009, TAT acquired 70% control of Bental Industries Ltd. In February 2014, TAT sold its entire interest in Bental Industries Ltd to Bental Investments Agshah Ltd. for an aggregate consideration of \$5 million.

On December 4, 2009, TAT, through its subsidiary Piedmont, signed an investment agreement with FAvS. According to the agreement, Piedmont was issued 288,334 shares of Class B common stock of FAvS, representing 37% of FAvS' then share capital (total number of shares acquired was subsequently adjusted as result of a 1 for 20 reverse stock split) and \$750,000 of FAvS preferred shares (entitled to cash dividends at an annual rate of 12% payable quarterly or to additional preferred shares at an annual rate of 15%) in return for Piedmont's propeller and parts businesses.

On March 11, 2015, Piedmont sold 237,932 shares of Class B common stock of FAvS representing 23.18% of FAvS' share capital and its entire holdings (16,253) of FAvS' Series A preferred stock for an insignificant amount. As of December 31, 2018, TAT owns approximately 5% of FAvS' issued and outstanding share capital.

In October 2015, TAT acquired Turbochrome, a company certified by the FAA and EASA to perform overhaul and coating of jet engine components, including turbine vanes and blades and fan blades.

In November 2015, TAT entered into an agreement with Engineering to establish a new MRO facility in Russia. The new company, TAT-Engineering LLC, is based in Novosibirsk's Tolmachevo airport and is providing services of minor repair, overhaul and recore for heat transfer components in Russia and the CIS. According to the joint venture agreement, TAT owns 51% of TAT-Engineering's shares and the remaining 49% are held by Engineering.

A. Business Overview

Overview

TAT Technologies Ltd. is a leading provider of solutions and services to the commercial and military aerospace and ground defense industries focused mainly on two product areas and services: Thermal Management and Power and Actuation. TAT operates under four segments: (i) OEM of heat transfer solutions and aviation accessories through its Gedera facility; (ii) MRO services for heat transfer components and OEM of heat transfer solutions through its Limco subsidiary; (iii) MRO services for aviation components through its Piedmont subsidiary; and (iv) overhaul and coating of jet engine components through its Turbochrome subsidiary.

TAT's activities in the area of OEM of heat transfer solutions and aviation accessories through its Gedera facility primarily include the design, development and manufacture of (i) a broad range of heat transfer solutions, such as pre-coolers heat exchangers and oil/fuel hydraulic heat exchangers, used in mechanical and electronic systems on board commercial, military and business aircraft; (ii) environmental control and power electronics cooling systems installed on board aircraft and ground applications; and (iii) a variety of other mechanical aircraft accessories and systems such as pumps, valves, and turbine power units.

TAT's activities in the area of MRO and OEM of heat transfer solutions include the MRO of heat transfer components and to a lesser extent, the manufacturing of certain heat transfer solutions. TAT's Limco subsidiary operates an FAA-certified repair station, which provides heat transfer MRO services for airlines, air cargo carriers, maintenance service centers and the military.

TAT's activities in the area of MRO services for aviation components include the MRO of APUs, landing gears and other aircraft components. TAT's Piedmont subsidiary operates an FAA-certified repair station, which provides aircraft component MRO services for airlines, air cargo carriers, maintenance service centers and the military.

TAT's activities in the area of jet engine overhaul through its Turbochrome facility includes the overhaul and coating of jet engine components, including turbine vanes and blades, fan blades, variable inlet guide vanes and afterburner flaps.

OEM of Heat Transfer Solutions and Aviation Accessories (Gedera)

TAT is an OEM of heat transfer solutions and aviation accessories to the commercial and military aerospace and ground defense industries, primarily through its Gedera facility. The main OEM activity at our Gedera facility is the design and manufacture of a comprehensive line of heat exchangers and cold plates. Heat transfer solutions facilitate removal and dissipation of heat generated during the operation of mechanical and electronic systems. Gedera's heat transfer solutions are generally integrated into complete cooling systems. Using proprietary technological expertise, we design each heat transfer product to meet the specific space, power, performance and other needs of our customers. Gedera's heat transfer solutions are marketed worldwide for applications in commercial and military aircraft and electronic systems, the primary users of such equipment. Gedera's customers include, Liebherr-Aerospace Toulouse S.A. ("Liebherr"), Boeing Aircraft Company ("Boeing"), Israel Aerospace Industries, ("IAI"), Cessna Aircraft Company ("Cessna"), Pilatus Aircraft Ltd ("Pilatus"), Embraer Empresa Brasileira de Aeronáutica S.A. ("Embraer"), Eaton Aerospace LLC ("Eaton"), Parker Hannifin Corporation ("Parker"), Bell Helicopter, as well as the U.S. Air Force, U.S. Army, and U.S. Navy and other air forces from around the world. Such supply contracts are generally long-term engagements that may have terms of ten years or more.

As part of its OEM activities, Gedera is also engaged in the design, development and manufacture of complete cooling systems. This product line principally includes cooling systems for electronic systems (used in airborne military platforms) and ground cooling systems (used in military facilities, tents, vehicles and other military applications).

In addition, Gedera designs, develops and manufactures aviation flow control accessories. These accessories include components, such as valves and pumps. Customers for Gedera's aviation accessories include Lockheed Martin Corporation ("Lockheed Martin"), Boeing, Continental Motors ("Continental"), the Israel Air Force ("IAF"), IAI, Elbit Systems ("Elbit"), Rafael Advanced Defense Systems ("Rafael"), as well as the U.S. Air Force and U.S. Navy and other air forces from around the world.

Gedera also provides limited MRO services to military customers, mainly for aviation accessories as well as for certain heat transfer solutions. Gedera currently overhauls emergency power units, hydrazine tanks, jet fuel starters, cooling turbines and various valves for the F-16 fighter aircraft. In addition, Gedera overhauls anti-icing valves and starters for the Blackhawk and Apache helicopters. The customers for Gedera's MRO services include the IAF, IAI, various NATO countries, as well as the U.S. Air Force, U.S. Army and U.S. Navy.

Gedera relies on highly qualified personnel and strong engineering, development and manufacturing capabilities that enable it to support its customers from the early program development phase to prototype delivery.

TAT estimates the size of the markets in which Gedera operates to be significant based on the scope of development projects and purchasing processes of its customers. Many of the projects Gedera is engaged in are lengthy and complex, which account for its long-term supplier relationships and the customer loyalty it enjoys. TAT plans to expand its Gedera operations in the OEM segment, among other things, by increasing the scope of work with its existing strategic customers, establishing relationships with new customers, increasing its capabilities in complete systems/subsystems manufacturing, and by targeting strategic territories with high commercial potential.

MRO Services for Heat Transfer Components and OEM of Heat Transfer Solutions (Limco)

Through its Limco subsidiary TAT provides MRO services and OEM services to the aerospace and ground defense industries in the field of heat transfer. Limco's FAA-certified repair station provides aircraft component MRO services for airlines, OEMs, air cargo carriers, maintenance service centers and the military. Limco is also certified by the EASA, the Civil Aviation Administration of Thailand ("DCA"), the Civil Aviation Administration of Indonesia ("DGCA"), and the Civil Aviation Administration of China ("CAAC"). Limco has also recently attained NADCAP certification for dye penetrant testing and welding. Limco specializes in MRO services for components of aircraft, such as heat transfer components and ozone converters. Generally, manufacturer specifications, government regulations and military maintenance regimens require that aircraft components undergo MRO servicing at regular intervals or as necessary. Aircraft heat transfer components typically require MRO services, including repairs and installation of replacement units, after two to five years of service or sooner if required. Aircraft manufacturers typically provide warranties on new aircraft and their components and subsystems, which may range from one to five years depending on the bargaining power of the purchaser. Warranty claims are generally the responsibility of the OEM during the warranty period. Limco's business opportunity usually begins upon the conclusion of the warranty period for these components and subsystems. Limco's customers include major U.S. domestic and international airlines, air cargo carriers, maintenance service centers, OEMs such as commercial and military aircraft manufacturers and defense contractors, and the U.S. Armed Forces (Army, Air Force, Navy and Coast Guard). MRO contracts with these types of customers are generally long-term engagements and may have terms of one to five years or more.

Limco enjoys a strong reputation among customers for its competitive pricing and fast turnaround time. It is recognized by leading OEMs of aerospace products to provide MRO services for their heat transfer solutions. For example, Limco is a well-recognized Collins Aerospace (Hamilton Sundstrand) repair center, providing MRO services for many of its heat transfer solutions.

In addition to its MRO services, Limco also manufactures, on an OEM basis, heat transfer solutions used in commercial, regional, business and military aviation platforms. Customers for Limco's heat transfer solutions include Boeing, the Defense Supply Center, Parker Hannifin, Raytheon Company ("Raytheon"), BAE Systems, Bell Helicopter, Triumph Aerostructures, Vought Aircraft Division, Cobham plc, Northrop Grumman Corporation and Gulfstream Aerospace Corporation.

TAT estimates the size of the markets in which Limco operates to be significant based on the number of aircraft requiring MRO services provided by Limco along with the customer loyalty Limco enjoys. TAT plans to expand its Limco operations, among other things, by developing OEM and MRO capabilities for additional types of heat transfer products with significant commercial potential.

MRO Services for Aviation Components (Piedmont)

Through its subsidiary Piedmont, TAT provides MRO services for aviation components to the aerospace industry. Piedmont's FAA- and EASA-certified repair station provides aircraft component MRO services for commercial airlines, business jets, air cargo carriers, maintenance service providers as well as governments and military forces worldwide. Piedmont specializes in MRO services for aircraft components, including APUs, landing gears and Machining and Plating services (MPG). Generally, manufacturer specifications, government regulations and military maintenance regimens require that aircraft components undergo MRO servicing at regular intervals or as necessary. Aircraft components typically require MRO services, including repairs and installation of replacement units, after three to ten years of service or sooner if required. Aircraft manufacturers typically provide warranties on new aircraft and their components and subsystems, which may range from one to five years. Warranty claims are generally the responsibility of the OEM during the warranty period. Piedmont's business opportunity usually begins upon the conclusion of the warranty period for these components and subsystems. Piedmont's customers include U.S. domestic and international airlines, air cargo carriers and maintenance service providers. MRO contracts with these types of customers are generally long-term engagements that may have terms of one to ten years or more.

Piedmont is licensed by Honeywell as an authorized repair center to provide MRO services for several types of its APU models. Piedmont has excellent working relationships with the major landing gear manufacturers as well.

TAT estimates the size of the markets in which Piedmont operates to be significant based on the number of aircraft requiring MRO services provided by Piedmont. TAT plans to expand its Piedmont operations in the MRO segment by using Piedmont's experience and reputation to develop MRO capabilities for additional types of APU and landing gears applications as well as other aircraft systems/components with significant commercial potential and by offering additional supplementary services such as machining, plating and grinding ("MPG").

Piedmont's extensive experience in the repair and overhaul of APUs and landing systems includes a comprehensive involvement in the industry supply chain. In addition to its MRO services, Piedmont is active worldwide in the exchange, lease and individual component parts supply of its APU and landing gear products. Through a network of industry partners and well-known aerospace parts distributors, Piedmont's activity in the sale of parts is a robust element of its business. Piedmont's quality systems are AS9110 and NADCAP for non-destructive testing.

Overhaul and Coating of Jet Engine Components (Turbochrome)

Through its subsidiary Turbochrome, TAT provides MRO services for jet engine components to the aerospace industry. Turbochrome's FAA- and EASA-certified repair station provides its services mainly to maintenance service centers, airlines and the military. Turbochrome specializes in MRO services for engine components such as turbine vanes and blades, compressor vanes and blades, fan blades and after burner flaps. Generally, manufacturer specifications, government regulations and military maintenance regimens require that engine components undergo MRO servicing at regular intervals or as necessary. Commercial engine components typically require MRO services after three to five years of service or sooner if required. Engine manufacturers typically provide warranties on new engines and their components and subsystems, which may range from one to five years depending on the bargaining power of the purchaser. Warranty claims are generally the responsibility of the OEM during the warranty period. Turbochrome's business opportunity usually begins upon the conclusion of the warranty period for these components. Turbochrome's customers include domestic and international airlines, maintenance service centers and the military.

Turbochrome also specializes in the manufacturing of coating powders (for pack cementation aluminide coatings) and masking materials (for the prevention of coating in defined areas) used in the aviation industry. Turbochrome provides these materials to OEMs and to maintenance service centers.

TAT estimates the size of the markets in which Turbochrome operates to be significant based on the number of jet engines requiring MRO services provided by Turbochrome. Turbochrome plans to expand its operations in the MRO segment by using Turbochrome's experience and reputation to develop MRO capabilities for additional types of jet engine components with significant commercial potential.

Turbochrome's quality system complies with ISO 9001 and AS9100, and with EASA part 145 and FAA FAR 145 for the civil parts.

TAT-Engineering LLC

In November 2015, we signed an agreement with Russian-based Engineering Holdings Ltd of Moscow ("Engineering"), to establish a new facility for the provision of MRO services for heat transfer components. The new company, TAT-Engineering LLC, is based in Novosibirsk's Tolmachevo airport. The new entity was established in January 2016 and is currently operating under FAA certifications and obtained FAA high-level repair approvals. Current efforts are focused on marketing initiatives targeting the major Russian and CIS airlines and maintenance stations.

Business Strategy

TAT aims to be the trusted partner to its strategic customers, delivering differentiated products and services in selected, high barrier-to-entry, markets. This will enable TAT to develop the long-term high-value relationships it strives to have with its customers to effectively complete and continue grow business and improve profitability. Currently, TAT's focus is on two main markets: thermal management solutions and services and Power and Actuation solutions and services.

Execution of TAT's strategy is based on the following principles:

- Enhancing OEM capabilities — capitalizing on our technical expertise, experience and reputation in the market of heat transfer solutions to expand the scope of our OEM offerings to new aircrafts or to new platforms in the existing aircrafts.

- Expand the scope of MRO services — leveraging our technical expertise, engineering resources and facilities to broaden MRO services to additional types of aircraft and additional aircraft systems, subsystems and components while developing the required technical expertise to provide these additional MRO services.

- Increasing market share — continuing aggressive marketing efforts to win new customers as well as to expand activities with existing customers, partly by focusing on cross selling opportunities between our different businesses. As part of our efforts, we also intend to expand our marketing presence in existing territories, like the United States and Western Europe as well as new territories, where TAT currently has a smaller presence and fewer customers, such as Eastern Europe, Latin America and Asia.

- Effective synergy among group members — enhancing the synergies between our various businesses. For example, by supplying Limco with heat transfer components manufactured in Gedera, we enable Limco to offer a superior product and more competitive pricing on its MRO services, thereby improving Limco's overall competitive position in the market.

- Organic growth and M&A — in addition to growing our existing businesses organically as detailed above, we intend to evaluate complementary acquisition opportunities.

Products and Services

OEM of Heat Transfer Solutions and Aviation Accessories

Through its Gedera facility, TAT manufactures a wide range of heat transfer solutions used on board aircraft, air conditioning systems, environmental control systems and cooling systems for electronics for military use. These solutions are manufactured in compliance with all of the stringent quality assurance standards that apply to the manufacture of aircraft parts. Gedera's quality system complies with ISO 9001, AS9100, Boeing quality systems approval D6-82479 and FAR 21.303 (the FAA standard for Parts Manufacturer Approval) and NADCAP for non-destructive testing and welding.

Heat Transfer Solutions

We manufacture a wide range of heat transfer solutions in our Gedera facility. Gedera specializes in the design and manufacture of highly efficient, compact and reliable heat transfer solutions that are designed to meet stringent constraints such as size, weight and environmental conditions. Heat transfer solutions, such as heat exchangers and cold plates, are integral components of a wide variety of environmental control, mechanical and engine systems, as well as a wide range of electronic systems. These systems generate heat during operation that must be removed and dissipated. Heat transfer solutions facilitate the exchange of heat created through the operation of these systems by transmitting the heat from a hot medium (air, oil or other fluids) to a cold medium for disposal.

In the aerospace industry, there is a constant need for improvements in performance, weight, cost and reliability. In addition, as electronic systems become smaller and more densely packed, the need for sophisticated and efficient heat transfer components used to provide the cooling functions becomes more critical. Using Gedera's technological expertise, TAT believes it is well positioned to respond to these industry demands through continued new product development and product improvements.

Gedera's principal heat transfer solutions include heat exchangers and cold plates. Typically, air-to-air heat exchangers cool a jet engine's bleed air which, when cooled, is then used in the aircraft's air conditioning, pressurization and pneumatic systems. The liquid-to-air heat exchangers cool liquids such as engine oil, hydraulic oil and others used in other systems.

Gedera provides a one-stop-shop for all types of heat transfer solutions. Gedera's heat exchangers are generally priced between approximately \$2,000 and \$45,000 per unit. A significant portion of Gedera's heat transfer solutions are sold to customers in connection with the original manufacture or retrofitting of particular aircraft equipment. Gedera generally enters into long-term supply contracts with its customers, which require Gedera to supply heat transfer products as part of a larger project.

Gedera also manufactures other heat transfer solutions, such as cooling chassis, heat sinks and cold plates (which may be air-to-air, liquid-to-air or liquid-to-liquid), to control and dispose heat emitted by the operation of various electronic systems. Such products are currently utilized mainly in radar systems, avionics, electronic warfare systems and various pods for targeting, navigation and night vision.

As a result of the specialized nature of the systems in which Gedera's parts are included, spare and replacement parts for the original heat transfer solutions are also usually provided by Gedera.

Aviation Flow Control Accessories

Gedera is also engaged in the design, development, manufacture and MRO services for aviation flow control accessories. These accessories include components such as valves and pumps.

Cooling and Air Conditioning Systems

Gedera is also engaged in the design, development and manufacture of complete environmental control systems and cooling systems. This product line includes ground cooling systems mainly for military applications such as mobile command and control units, command and control vehicles, armored vehicles, mobile broadcast units, mobile hospitals, etc. In addition, Gedera designs, develops and manufactures power electronics cooling systems based on customer specifications, while providing a complete engineering solution in compliance with strict civil aviation standards. Gedera's systems are used globally and are tested under strict standards.

MRO Services for Heat Transfer Components and OEM of Heat Transfer Solutions

MRO Services for Heat Transfer Components

Through its Limco subsidiary in the U.S., TAT provides MRO services for heat transfer components. The demand for MRO services is driven by the size and age of the aircraft fleet, aircraft utilization and regulations set OR promulgated by the FAA and other governmental authorities.

Due to the increased maintenance costs of their aging fleets many carriers are seeking ways to reduce costs, minimize down-time, increase aircraft reliability and extend time between overhauls. One way to accomplish this goal is through the outsourcing of more of their maintenance and support functions to reliable third parties. Furthermore, we believe that commercial carriers making the decision to outsource their MRO requirements are searching for MRO service providers with a wide-range of service capabilities. Such MRO service providers allow the carriers to concentrate their outsourcing of MRO services to a select group of third party providers. The global military aircraft fleet also presents similar opportunities for MRO service providers. We believe that an aging military fleet and the increased use of upgrade programs aimed at extending the useful life of military aircraft will provide continued MRO growth opportunities.

Limco specializes in the repair and overhaul of heat transfer components. These components include heat exchangers, oil coolers, precoolers, reheaters, condensers, water separators, fuel heaters, evaporators and ozone converters.

Limco is continually expanding its MRO capabilities based on market need and/or customer request. Limco's capabilities include heat transfer components used in aircraft and systems manufactured by Airbus, Boeing, Bombardier, Cessna, Embraer, Lockheed Martin, Fokker, Liebherr-Aerospace, Collins Aerospace, Honeywell Aerospace and others.

One of Limco's operational strengths and competitive advantages is the close cooperation with TAT's Gedera facility. Through Gedera's core manufacturing capabilities and engineering expertise, Limco enjoys a constant supply source of cores of the highest quality necessary in order to perform its MRO services for heat transfer components. In addition, Limco benefits from Gedera's varied engineering and development capabilities relevant to Limco's services in the field of heat transfer components.

Limco performs MRO services at its repair station in Tulsa, Oklahoma which has ISO9001, AS9110 and AS9100 certification, NADCAP certification for Dye Penetrant Testing and Welding, and is licensed to provide MRO services by the FAA and EASA, as well as by the civil aviation Administrations of Thailand, Indonesia and China.

Limco offers different OR various MRO services for heat transfer components. If the damage is significant, Limco will remanufacture the unit, which generally entails replacing the core matrix of the damaged or old heat transfer component in lieu of replacing the entire unit with a new one. Limco designs and develops these customized remanufactured units as a cost-effective alternative to new part replacement. In the event of less severe damage, Limco will either overhaul or repair the unit as necessary. Re-manufactured units carry warranties which are often equal or better than those provided to new units.

OEM Authorizations and Licenses

Limco believes that establishing and maintaining relationships with OEMs of aircraft systems and components is an important factor in achieving sustainable success as an independent MRO service provider. OEMs grant independent MRO service providers authorization to perform repair and overhaul services on their behalf. OEMs generally grant very few authorizations and maintain tight controls over their authorized MRO service providers in order to maintain high quality of service to their customers. Obtaining OEM authorization requires sophisticated technological capabilities, experience-based industry knowledge and substantial capital investment. Furthermore, Limco believes that service providers that have OEM authorization gain a competitive advantage as they typically receive discounts on parts, technical information and OEM warranty support. Limco is an independent MRO service provider that is a well-recognized repair center of Collins Aerospace (Hamilton Sundstrand), one of the largest heat transfer solutions manufacturers in North America OR in the United States.

OEM of Heat Transfer Solutions

In addition to its MRO services, Limco also acts as an OEM manufacturer of heat transfer solutions used mainly in military aircraft and other ground applications and to a lesser extent, in commercial, regional and business aircraft. Limco specializes in the design and manufacture of highly efficient heat transfer solutions, which are designed to meet stringent constraints such as size, weight and applicable environmental conditions. These units include heat exchangers, oil coolers, precoolers, reheaters, condensers, fuel heaters and evaporators.

Limco also manufactures demineralizer systems for U.S. Navy vessels, including ships and nuclear submarines. Limco currently offers tens of OEM parts to the aerospace and ground defense industries. These parts are manufactured in compliance with the stringent quality assurance standards that apply to the manufacture of aircraft and military parts.

Limco's quality systems are ISO9001, AS9110, AS9100 and NADCAP for non-destructive testing and welding and FAR 21.303 (the FAA standard for Parts Manufacturer Approval).

MRO Services for Aviation Components

Through its Piedmont subsidiary, TAT provides MRO services for aviation components, including APUs and landing gear. As previously mentioned, the demand for MRO services is driven by the size and age of the aircraft fleet, aircraft utilization and regulations by the FAA and other governmental authorities.

Due to increased maintenance costs of their aging fleets many carriers are seeking ways to reduce costs, minimize down-time, increase aircraft reliability and extend time between overhauls. One way to accomplish this goal is through the outsourcing of more of their maintenance and support functions to reliable third parties. Furthermore, we also believe that commercial carriers making the decision to outsource their MRO requirements are searching for MRO service providers that offer a wide-range of service capabilities. These MRO service providers allow the carriers to concentrate their outsourcing of MRO services to a select group of third party providers. The global military aircraft fleet also presents similar opportunities for MRO service providers. We believe that an aging military fleet and the increased use of upgrade programs aimed at extending the useful life of aircrafts will provide continued MRO growth opportunities.

Piedmont specializes in the repair and overhaul of APUs and landing gears. APUs are relatively small, self-contained generators used to start jet engines, usually with compressed air, and to provide electricity, hydraulic pressure and air conditioning while an aircraft is on the ground. In many aircraft, an APU can also provide electrical power during in-flight emergency situations. Landing gears are the structure that support an aircraft on the ground and allow it to taxi, takeoff and land.

Piedmont performs MRO services at its repair station in Greensboro, North Carolina, which is licensed by the FAA and EASA. Piedmont specializes in providing comprehensive repair and overhaul services for APU models manufactured by both Honeywell and Hamilton Sundstrand, two leading OEMs in the United States. In addition, Piedmont provides full repair, overhaul, machining, plating and grinding services for landing gear systems for commercial and military aircraft. Piedmont has a long history in providing landing gear MRO services for regional airliners, including aircraft manufactured by Bombardier (CRJ 100/200/Dash8), the French-Italian ATR (42/72), Gulfstream (G4), Lockheed martin (P3/C130) and the Brazilian Embraer (E170/E190).

OEM Authorizations and Licenses

Piedmont believes that establishing and maintaining relationships with OEMs of aircraft systems and components is an important factor in achieving sustainable success as an independent MRO service provider. OEMs grant independent MRO service providers authorizations or licenses to perform repair and overhaul services on the equipment they manufacture. OEMs generally grant few authorizations or licenses and maintain tight controls over their authorized and licensed MRO service providers, in order to maintain high quality of service to their customers. Obtaining OEM authorizations requires sophisticated technological capabilities, experience-based industry knowledge and substantial capital investment. Piedmont believes that service providers that have OEM authorizations and licenses gain a competitive advantage as they typically receive discounts on parts, technical information, OEM warranty support and use of the OEM name in marketing. Piedmont is an authorized repair station licensed by Honeywell, the largest manufacturer of APUs, for several of its APU models.

Machining, Plating and Grinding, or MPG Services

Piedmont has extended its services to include the provision of MPG services, either as supplementary to its traditional MRO services or as stand-alone services. We believe that establishing and maintaining customer relationships with our MPG shop is an important factor in achieving sustainable success as an independent MRO service provider and creates a competitive advantage.

Overhaul and Coating of Jet Engine Components

Through its subsidiary, Turbochrome, TAT provides MRO services for jet engine components to the aerospace industry. Turbochrome's FAA- and EASA-certified repair station provides its services mainly to maintenance service centers, airlines and the military. Turbochrome specializes in MRO services for engine components such as turbine vanes and blades, compressor vanes and blades, fan blades and after burner flaps. Generally, manufacturer specifications, government regulations and military maintenance regimens require that engine components undergo MRO servicing at regular intervals or as necessary. Commercial engine components typically require MRO services after three to five years of service or sooner if required. Engine manufacturers typically provide warranties on new engines and their components and subsystems, which may range from one to five years depending on the bargaining power of the purchaser. Engine manufacturers may also offer extended warranty agreements for 10 to 15 years for the engines. Warranty claims are generally the responsibility of the OEM during the warranty period. Turbochrome's business opportunity usually begins upon the conclusion of the warranty period for these components. Turbochrome offers its customers DER (Designated Engineering Representatives) and DOA (Design Organization Approval) repairs approved by the FAA and EASA. Turbochrome's customers include U.S. domestic and international airlines, maintenance service centers and the military.

TAT estimates the size of the markets in which Turbochrome operates to be significant based on the number of jet engines requiring MRO services provided by Turbochrome. Turbochrome plans to expand its operations in the MRO segment by using Turbochrome's experience and reputation to develop MRO capabilities for additional types of jet engine components with significant commercial potential.

Turbochrome's quality system complies with ISO 9001 and AS9100, and with EASA part 145, FAA FAR 145 for the civil parts, the Israel Laboratory Accreditation Authority under ISO/IEC 17025:20 and NADCAP for 3 manufacturing procedures.

Manufacturing of masking and coating materials

Through its Turbochrome facility, TAT manufactures a wide range of masking and coating materials for the aviation industry. These products are manufactured in compliance with all of the stringent quality assurance standards that apply to the maintenance of aircraft engine components.

Customers

General

TAT targets a broad range of customers within the commercial and military aerospace and ground defense industries. Our customers include commercial manufacturers of military equipment, commercial airlines, aircraft manufacturers, military forces, the defense industry, and other manufacturers of electronic systems, aviation units and machinery in the United States, Europe, CIS, Asia, Latin America and Israel. During 2018, TAT had revenues generated by more than 650 customers worldwide.

Major Customers

OEM Customers

TAT, primarily through its Gedera facility, sells its OEM solutions and systems to commercial and military aircraft manufacturers and defense contractors and to the U.S. and Israeli governments.

Partial lists of OEM customers are set in the following table:

Aircraft manufacturers	Boeing, Cessna, Pilatus, Embraer, Lockheed Martin, Honda Aircraft, Cirrus, IAI, Parker.
System manufacturers/integrators and defense contractors	Liebherr, Wuhan Hangda, Thales, Rafael, Elbit, IAI, Lockheed Martin, Eaton Aerospace, Parker Hannifin Corporation, Safran (Snecma).

The development projects and purchasing processes of many of TAT's OEM customers are lengthy and complex and accordingly, with some customers, TAT enters into frame agreements that determine certain legal conditions, but under which the customer is not obligated to purchase any quantity of products. Typically, customers issue purchase orders with the required supply quantity, price, lead times and other related terms.

MRO Customers

TAT services MRO customers primarily through Limco, Piedmont and Turbochrome, including major U.S. domestic and international airlines, air cargo carriers, maintenance service centers, the U.S. Armed Forces and other air forces from around the world.

TAT's partial list of MRO customers is set forth in the following table:

U.S. Domestic and international airlines and air cargo carriers	Air France-KLM, FedEx, SAS, Swiss, EL AL, Delta Airlines, United, Air Canada Jazz, Republic Airways, DHL, Austrian Airlines, TAM, Thai, Korean Air, Air India, Swiftair, Allegiant Air, Empire Airlines, Mountain Air Cargo, Alliance Airlines.
Maintenance service centers	Fokker, Honeywell International, Kellstrom Commercial, Aero Kool, Lufthansa Technik, UTAS-Hamilton Sundstrand, SR Technics, Evergreen Aviation Component Services, Turkish Technic, Delta Tech Ops, ST Aerospace Engineering, , Gulfstream, IAI, Aerothrust, Summit Aviation, Haeco Americas, Jet Engine Technologies, Turbine Engine Solution, Turbine Engine Center and Cargolux.
Governments and military air forces	U.S. Army, U.S. Air Force and U.S. Navy; Israeli Ministry of Defense, IAF; Belgium Air Force, Polish Air Force, Portuguese Air Force

Military Contracts

Sales to the U.S. government, our largest government customer, accounted for approximately 2.4% of TAT's revenues for the year ended December 31, 2018, approximately 4.7% of our revenues for the year ended December 31, 2017 and approximately 5.6% of our revenues for the year ended December 31, 2016.

Many of TAT's military contracts are awarded on a competitive basis based on technical merit, personnel qualifications, experience and price. TAT also receives some contract awards involving special technical capabilities on a negotiated, noncompetitive basis due to TAT's technical capabilities.

TAT provides products under government contracts that usually require performance over a period of several months to several years. Long-term contracts for the U.S. military may be conditioned upon continued availability of congressional appropriations. Variances between anticipated budget and congressional appropriations may result in a delay, modification of scope or termination of these contracts.

The vast majority of the governmental contracts to which TAT is party to are fixed-price contracts, some of which contain fixed-price escalation mechanism. Under these contracts, TAT agrees to perform specific work for a fixed price and, accordingly, realizes the benefit or detriment to the extent that the actual cost of performing the work differs from the contract price. The allowable government contract costs and fees of TAT are subject to audit and may result in non-reimbursement of some contract costs and fees. While governments reserve the right to conduct further audits, audits conducted for periods through fiscal year 2018 have resulted in no material cost recovery disallowances for TAT.

TAT's eligibility to perform under its government contracts requires us to maintain adequate security measures. TAT has implemented security procedures that it believes adequately satisfies the requirements of its current government contracts.

Backlog and Long-Term Agreements

Our backlog includes the following: (i) actual purchase orders, and (ii) the maximum estimated sales we expect to generate from long-term agreements for which we do not have actual purchase orders. It should be noted that under these long-term agreements there is no legal obligation from the customer to purchase our products or services, yet typically our customers would not sign such an agreement unless there is a specific business opportunity. As such, backlog information may not necessarily be indicative of future sales.

As of December 31, 2018, our backlog included: (i) outstanding purchase orders representing an aggregate amount of \$47 million, and (ii) sales that we expect to generate from long-term agreements (the longest of which is until 2038) for which we have not yet received actual purchase orders in an aggregate amount of \$214 million.

Product and Service Warranties

TAT provides warranties for its products and services ranging from one to three years, depending on the nature of the specific product. To date, TAT's warranty costs have not been substantial. As of December 31, 2018, the combined warranty reserve for TAT was \$0.3 million.

Competitive Environment

OEM of Heat Transfer Solutions and Aviation Accessories

The aerospace and defense OEM industries in general and specifically, the commercial and military aviation markets, are characterized by intense competition and the need to constantly be in the forefront of technological innovations in order to be able to offer technologically-advanced and attractive products. Competition in these OEM markets is also based on price, quality and on time delivery. TAT estimates the market size of heat transfer solutions to be significant based on the scope of development projects and purchasing processes of the potential customers. TAT estimates that there is a small number of competing suppliers in the aerospace and defense OEM markets due to the high barriers to entry to these markets, which include the need for highly qualified and trained personnel, technologically advanced facilities and the need to obtain appropriate governmental approvals. The nature of the projects in the commercial and military aviation OEM industry, which are often time consuming and complex, also require long-term supplier relationships and customer loyalty in order to succeed.

TAT's competitors in the global OEM aerospace and defense industries can be divided into two main groups:

Complete system manufacturers that either independently or through subcontractors, design, develop and manufacture complete systems (such as a manufacturer of aircraft hydraulic systems) directly for the platform manufacturer (i.e., for business jets). These companies will typically compete on bids for complete systems and/or projects where the components/products TAT develops are part of the complete system. In such cases, it is very likely that these companies will subcontract to companies such as TAT the design and manufacturing of one or a few components in the system. Although some of these companies have the capabilities to design and manufacture each standalone component in a complete system (i.e., a heat exchanger integrated in hydraulic systems) they usually do not compete with TAT in projects where there is a specific requirement for a stand-alone component.

Component manufacturers, such as TAT, for which the design and manufacture of components (such as heat exchangers or other types of heat transfer solutions) is the main business (and which are normally situated in the “value chain” one tier below the system manufacturers, such as a manufacturer of an aircraft’s hydraulic system and two tiers below the platform manufacturer, such as a manufacturer of a new aircraft). These companies typically compete in projects where there is a specific requirement for a standalone aviation component (such as a heat exchanger or other types of heat transfer solutions) and in tenders by manufacturers of complete systems or products for sub-contractors. Although some of the component manufacturers have the capabilities to design, develop and manufacture a complete system (i.e., environmental control system for a business jet) for a certain platform, these companies usually do not compete on projects for complete systems in which their manufactured component constitutes a small part of the complete system, mainly due to the high barriers to entry and to the difficulty to move up the “value chain” from a component supplier to a whole system manufacturer.

The major competitors of TAT in the area of OEM of heat transfer solutions and aviation accessories include manufacturers in the United States such as the Hughes-Treidler division of Ametek, Lytron, Niagara Thermal, Hamilton Sundstrand, Honeywell International and Triumph Thermal Systems; manufacturers based in Europe such as I.M.I. Marston, a subsidiary of Hamilton Sundstrand, Safran and Liebherr; and manufacturers based in Asia such as Sumitomo Precision Products from Japan. These competitors may enjoy competitive advantages over Gedera, such as:

- The ability to adapt faster to changes in customer requirements and industry conditions or trends;

- Greater access to capital;
- Stronger relationships with customers and suppliers;
- Greater name recognition;
- Access to superior technology and greater marketing resources;
- Ability to offer complete systems in addition to components; and
- The ability to bundle heat transfer solutions and other aircraft components.

MRO Services for Heat Transfer Components

The market for MRO services in the field of heat transfer components is highly competitive. Competition in this market is based on price, turnaround time, quality and breadth of services. TAT's global competitors in the field of servicing heat transfer components can be divided into two main groups:

Service divisions of OEMs – generally, each OEM of products in the heat transfer solutions segment has the necessary capabilities to provide MRO services for products it designs and manufactures throughout its lifetime, commencing with the initial warranty period and through the after-market period. Service divisions of OEMs may also acquire capabilities to service products of other OEMs to further expand their MRO services.

Service centers – which often provide MRO services for a broad range of components and systems. These service centers can be either the in-house maintenance services of commercial airlines or other independent service providers, such as TAT OR Limco.

For heat transfer MRO services, TAT's major competitors are Triumph Thermal Systems, Lori Heat Transfer Center of Honeywell, Drake Air – Ametek, Liebherr-Aerospace, American Cooler Service, Hamilton Malaysia, Lufthansa Technik, Meggitt (Elite) and others.

As an independent MRO service provider, Limco's competitors have inherent competitive advantages. For example, Limco competes with the service divisions of large OEMs which in some cases have design authority with respect to their OEM solutions and are able to derive significant pricing advantages from their OEM manufacturing activities. Limco also competes with the in-house service divisions of large commercial airlines where there is a strong incentive for an airline to fully utilize the services of its maintenance employees and facilities. Further, Limco's competitors may have additional competitive advantages, such as:

- Ability to bundle heat transfer and other aircraft components;
- Access to greater marketing resources;
- Access to superior technology; and
- Greater resources which allows for better turnaround time.

MRO Services for Aviation Components

The market for MRO services in which Piedmont operates is highly competitive. Competition in this market is based on quality, price, turnaround time and breadth of services. Piedmont's primary MRO services competitors are the service divisions of OEMs, the in-house maintenance services of various commercial airlines and other independent service providers, such as TAT OR Piedmont. For APU and landing gear MRO services Piedmont's major competitors are Standard Aero Group., Aerotech International, Honeywell International, Chase Aerospace, Professional Aviation, Messier-Dowty Aerospace (MD), AAR, Hawker Pacific, APRO and others.

A number of Piedmont's competitors have inherent competitive advantages. For example, Piedmont competes with the service divisions of large OEMs which in some cases have design authority with respect to their OEM products and are able to derive significant brand recognition from their OEM manufacturing activities. Piedmont also competes with the in-house service divisions of large commercial airlines where there is a strong incentive for an airline to fully utilize the services of its maintenance employees and facilities. Further, Piedmont's competitors may have additional competitive advantages, such as:

- Better name recognition;
- Ability to bundle aviation and other aircraft components;
- Stronger relationships with customers and suppliers;
- Lower cost structure;
- Regional support near customers' location;
- Access to greater marketing resources;
- Access to superior technology
- Greater access to capital; and
- Greater resources which allows for better turnaround time.

Overhaul and Coating of Jet Engine Components

The market for MRO services in which Turbochrome operates is highly competitive. Competition in this market is based on quality, price, level of service and turnaround time. Turbochrome's primary MRO services competitors are the service divisions of OEMs, the in-house maintenance services of various commercial airlines and other independent service providers, including Safran (Snecma), General Electric, GKN, PAS, Chromalloy Southwest, MCT Japan and others. With respect to coating and masking materials, Turbochrome's competitor is APV Coatings.

A number of Turbochrome's competitors have inherent competitive advantages. For example, Turbochrome competes with the service divisions of large OEMs which may have design authority with respect to their OEM products and are able to derive significant brand recognition from their OEM manufacturing activities. Turbochrome also competes with the in-house service divisions of large commercial airlines and there is a strong incentive for an airline to fully utilize the services of its maintenance employees and facilities. Further, Turbochrome's competitors may have additional competitive advantages, such as:

- The ability to adapt faster to changes in customer requirements and industry conditions or trends;
- Better name recognition;
- Ability to bundle jet engine and other aircraft components;
- Stronger relationships with customers, OEMs and suppliers;
- Lower cost structure;
- Regional support near customers' location;
- Access to greater marketing resources;
- Access to superior technology;
- Greater access to capital; and
- Greater resources which allows for better turnaround time

Competitive Strengths

We believe that TAT's success can be attributed to several critical factors, including the following:

- Engaging in active efforts to preserve its customer base in existing projects, while working to broaden and increase its involvement with such clients.
- Conducting marketing activities aimed at penetrating new geographical markets and winning new customers, while taking advantage of the unique knowledge and expertise that TAT and its subsidiaries have gained in various areas.
- Entering into additional related operating segments that will enable TAT and its subsidiaries to fulfill their growth potential.
- Providing customers with the best value, including competitive prices, by tailoring comprehensive service packages that combine the design and planning of an OEM component, the manufacture of such component, and the provision of maintenance services.
- Extending MRO capabilities in order to establish a 'one-stop-shop' center for comprehensive MRO services for the types of aircraft Limco and/or Piedmont and/or Turbochrome target.
- Enhancing our engineering capabilities in order to support customer needs related to new projects and in order to certify MRO services that differ from processes previously approved by the FAA, EASA or other regulatory authorities. This allows shortening the long and complex approval process, streamlining the design and certification process and reducing costs.
- Leveraging operational efficiencies to achieve shorter delivery times and reduce costs.
- Investing in new technologies and manufacturing techniques in the heat transfer solutions product line.
- Investing in innovations and improvements aimed at enhancing the quality and performance of our existing solutions and services as well as the development of new products in an effort to strengthen our market position and enter into more advanced platforms.

Engineering

We believe that our engineering capabilities is a strategic core competency and key competitive advantage, which allows us to effectively compete in the market with companies which, in many cases, have better name recognition and greater resources than we do. Our strong engineering capabilities enable us to meet our customers' increasingly complex demands to deliver high-quality and cost-effective solutions while maintaining efficient development cycles. These capabilities are based on proprietary technological expertise and know-how developed by highly-experienced multi-disciplinary teams over the years. We believe that this proprietary knowledge coupled with our innovative and problem-solving approach allows us to provide our customers with an overall superior solution – in both manufacturing and MRO services – in terms of quality, cost and turnaround time. Our strong engineering capabilities are a key factor in preserving customer loyalty as well as supporting our efforts to expand our services to new areas of growth.

Gedera's engineering staff has extensive knowledge and experience in designing heat transfer solutions. In general, Gedera has manufacturing capabilities for most heat transfer solutions. Gedera manufactures the necessary tools, fixtures, test equipment and special jigs which are required to manufacture, assemble and test these products. Gedera developed proprietary design and analysis techniques which assist in the mechanical and thermal design of its products. All of Gedera's products are inspected and tested by trained inspectors using highly sophisticated test equipment in accordance with its customer requirements.

Limco's engineering department enhances its ability to provide its customers with high-end top-quality MRO services, supports the development of MRO services for new products with commercial potential and supports its OEM activity. Limco's engineering department employs certified mechanical and aerospace engineers. Limco's multi-disciplinary team of engineers specializes in, among others, heat transfer solutions and components and supports all processes of thermal and structural analysis, mechanical and metallurgical research and development for manufacturing design. Limco's engineers have direct experience with aerospace component repair and with obtaining supplemental type certificates from the FAA. Limco's engineering department supports the development of new repairs capabilities that extend beyond the limits of the component maintenance manual and utilizes DER to obtain the necessary FAA approvals.

Piedmont's engineering department employs experienced mechanical and aerospace engineers with repair station and manufacturing experience in both engineering and quality. Piedmont also has an FAA-certified DER on staff with delegations in Power plant (APUs) & Mechanical Systems and with special delegation to manage and approve repair specifications. In addition to developing quality major repairs, Piedmont's engineers have experience in obtaining supplemental type certificates and parts manufacturer approvals while working directly with the FAA Aircraft Certification Office.

Turbochrome's engineering department enhances its ability to provide its customers with high-end top-quality MRO services. Turbochrome's engineering department employs several certified mechanical and metallurgical engineers. Turbochrome's multi-disciplinary team of engineers specializes in, among other things, turbine components and supports all processes of thermal and structural analysis and mechanical and metallurgical research and development. Turbochrome's engineers have substantial experience with aerospace component repair and with obtaining DER and DOA certificates from the FAA and EASA.

Research and Development

The technological developments in TAT's markets drive the need to constantly examine the use of new materials and technologies in an effort to improve both the physical characteristics of the products (size, weight), as well as their performance (optimal heat transfer, higher reliability and increased lifespan). TAT also develops new products and enhanced functionalities for its existing products based on customer demands and in response to the competitive environment and market potential. TAT invests resources to attain such technological and product improvements in cooperation with its customers.

Source and Availability of Raw Materials and Spare Parts

TAT and its subsidiaries acquire most of the components for the manufacture of their products and provision of their services from a limited number of suppliers and subcontractors, the majority located in Israel and the United States. Some of these suppliers are currently the sole source of one or more components upon which TAT and its subsidiaries are dependent. Since many of TAT's and its subsidiaries' purchases require long lead times, a delay in the supply of an item can significantly delay the delivery of a product. Generally, TAT and its subsidiaries have not experienced significant difficulty in obtaining timely deliveries of necessary components; however, if they are unable to obtain these components when needed, they would experience delays in manufacturing their products and their financial results could be adversely affected.

The raw materials used in manufacturing programs are generally readily available metals and alloys. TAT and its subsidiaries have not had any significant difficulty in obtaining such materials in the past.

TAT and its subsidiaries select their suppliers primarily based on their ability to ensure that their parts are serviceable and traceable to OEM-approved sources, their delivery performance and their ability to help reduce the total cost of procuring those parts. For quality control, cost and efficiency reasons, TAT and its subsidiaries generally purchase supplies only from vendors with whom they have ongoing relationships or who their customers have previously approved.

Authorizations from OEMs often require that TAT purchase component parts that are needed for its MRO services from the OEM or its designated distributors.

Wherever possible, TAT and its subsidiaries have made and continue to make an effort to qualify second sources or have identified alternate sources for many of their parts needs.

Israeli Export Policy

Exports of military related products are subject to the military export policy of the State of Israel. Currently the Israeli government encourages exports to approved customers, provided that such exports do not run counter to Israeli policy or national security considerations. Geder must obtain a permit prior to initiating a sales proposal and ultimately an export license for the transaction is required. Israeli law also regulates the export of “dual use” items (items that are typically sold for civilian uses OR purposes but that may also have military purposes).

While we have been successful in obtaining export permits in the past, we may not be able to obtain the necessary export permits or licenses in the future. In addition, governmental policy with respect to military exports (or dual use items) may be altered.

U.S. Export Regulations

Export of defense products, military technical data and technical services by our U.S. subsidiaries to Israel and other countries is subject to applicable approvals by the U.S. government under the U.S. International Traffic in Arms Regulations ("ITAR"). Such approvals are typically in the form of an export license or a technical assistance agreement ("TAA"). Other U.S. companies wishing to export defense products or military-related services and technology to our Israeli and other non-U.S. entities are also required to obtain such export licenses and TAAs. An application for an export license or a TAA requires disclosure of the intended end user and the use of the technology. Pursuant to recent export control reform initiatives in the United States, a greater part of our U.S. subsidiaries' and our U.S. suppliers' activities are becoming subject to control under the Export Administration Act "dual use" regulations. The U.S. government may deny an export authorization if it determines that a transaction is counter to U.S. policy or national security.

Proprietary Rights

At the present time, TAT and its subsidiaries do not own any patents. TAT and its subsidiaries rely on laws protecting trade secrets, and consider such items proprietary; however, we believe that our success depends less on the ownership of such proprietary rights than on our innovative skills, technical competences, marketing and engineering abilities. TAT and its subsidiaries have no material registered trademarks.

B. Government Regulations

Aerospace and Safety Regulations

The commercial aerospace industry is highly regulated by the FAA in the United States, EASA in Europe, and other governmental authorities elsewhere in the world, while the military aerospace industry is governed by military quality specifications established by the U.S. Department of Defense for the manufacturing and repair industries and ISO-9000. TAT is required to be certified by one or more of these entities and, in some cases, by individual OEMs. TAT must also satisfy the requirements of its customers, including OEMs and airlines that are subject to FAA regulations and to evolving industry standards, and provide these customers with products that comply with the government regulations applicable to commercial flight operations. TAT believes it currently satisfies or exceeds these FAA maintenance standards in its repair and overhaul activities. Our active OR operating repair stations in Israel and the United States are approved by the FAA (while TAT-Engineering, our joint venture in Russia, is currently pursuing such certification OR is currently in process of pursuing such certification). TAT also believes it currently satisfies all industry standards in its facilities.

TAT's operations are also subject to a variety of worker and community safety laws including the Occupational Safety and Health Act of 1970, known as OSHA, which mandates general requirements for safe workplaces for all U.S. employees. In addition, OSHA provides special procedures and measures for the handling of certain hazardous and toxic substances. TAT believes that its operations are in compliance with OSHA's requirements.

TAT believes that it is in material compliance with U.S., European and other governmental regulations affecting the aerospace and defense industries.

Israeli Regulations

TAT's operations in Israel are subject to supervision by the Israeli Ministry of Defense and Civil Aviation Administration of Israel. Gedera is certified by the IAF and the Israeli Ministry of Defense for both manufacturing and maintenance. Gedera is also licensed as a repair station for certain components by the Civil Aviation Administration of Israel. In addition, Gedera's export of certain products and/or know-how is subject to approval by the Defense Export Controls Agency ("DECA") of the Israeli Ministry of Defense. DECA permits are required prior to submitting sales proposals with regard to such exports, as well as for the actual export of such products.

Environmental Matters

TAT's operations are subject to a number of stringent federal, state and local environmental laws in the United States and Israel, as well as to regulation set OR promulgated by government agencies, including the U.S. Environmental Protection Agency. Among other matters, these regulatory authorities impose requirements that regulate the emission, discharge, generation, management, transportation and disposal of pollutants and hazardous substances. These authorities may require TAT to initiate actions to remediate the effects of hazardous substances which may be or have been released into the environment and require TAT to obtain and maintain permits in connection with TAT's operations. This extensive regulatory framework imposes significant compliance burdens and risks.

Although TAT seeks to maintain its operations and facilities in compliance with applicable environmental laws, there can be no assurance that TAT has no violations, or that change in such laws, regulations or interpretations of such laws, will not require TAT to make significant additional expenditures to ensure compliance in the future. Currently, TAT does not believe that it will have to make material capital expenditures for its operations to comply with environmental laws or regulations, or to incur material costs for environmental remediation during the 2019 fiscal year.

TAT has received no material third party environmental claims relating to its facilities, and TAT believes that it has all material licenses and certifications that are required in the jurisdictions in which it operates.

C. Property, Plants and Equipment

The Gedera facility is located in Park Re'em near Gedera. This facility is approximately 348,000 square feet and houses TAT's executive offices, Gedera's research and development and manufacturing operations. The land of this facility is leased by TAT Industries from the Israel Land Authority ("ILA"). Approximately 26,000 square feet of the facility are sub-leased to TAT from 1991 until 2020 and the lease from the ILA is expected to expire in 2020. TAT sub-leases the remaining 322,000 square feet of the facility from TAT Industries pursuant to an agreement TAT entered into in connection with the purchase of the operations relating to the manufacture of aviation accessories of TAT Industries in February 2000. The lease agreement expires at the end of 2024. In 2015, the rental fee was reviewed by a real estate appraiser who determined that the rental fee would be \$656 thousand per year with an additional incremental payment of 2% per year. Total rental payments TAT paid to TAT Industries during 2018, 2017 and 2016 were \$767, \$740 and \$683 thousand, respectively.

Limco owns and operates a 55,000 square feet manufacturing plant in Tulsa, Oklahoma which has historically supported all its business, including its aftermarket heat transfer component repair station. This facility also has housed Limco's administration, engineering, quality control and support services. Limco also leases building #2, building #3 and building #4. Building #2 lease is effective from July 1, 2017 to May 31, 2022 and any time after March 31, 2019 lessee or lessor may terminate this lease by giving lessee or lessor six months' written notice. The rent for building #2 is \$4,000 per month plus the percentage increase in the consumer price index annually. Building #3 lease expired on January 31, 2014. The lease has renewed automatically from year to year since that date. Either party has the right to cancel the lease with 30 days' notice prior to the expiration or anniversary date of the term and is in full force and effect. The rent for building #3 is \$1,452 per month plus the percentage increase in the consumer price index. Building #4 lease is effective from April 1, 2017 to March 31, 2030. The early termination option on Building #4 states that at any time after March 31, 2019, the lessee or the lessor may terminate this lease by giving the lessee or lessor 6 months' written notice. The rent is \$2,800.00 per month for building #4 plus the percentage increase in the consumer price index. In 2018, 2017 and 2016, the rental expense for this property was \$92, \$72 and \$51 thousand, respectively, for each one of these years.

In the second half of 2015, Piedmont leased approximately 82,000 square feet in Greensboro, North Carolina, for its new landing gear component and overhaul repair station as well as the MPG operation. The lease expires on June 30, 2025. In 2018, 2017 and 2016 the rental expense was \$324, \$324 and \$297 thousand, respectively, for each one of these years. In addition, Piedmont leases approximately 56,000 square feet space for its facility in Kernersville, North Carolina to support its APU component and overhaul repair station. during 2018, Piedmont vacated the first floor of the facility while continue to lease the second floor space, approximately 28,000 square feet. In 2018, 2017 and 2016, the rental expense for this property was \$78, \$78 and \$60 thousand for each one of these years. The lease expired in October 31, 2016, and is now extended month to month. Moreover, during 2016, Piedmont also leased approximately 32,000 square feet for its facility in Winston-Salem, North Carolina to support its former landing gear component and overhaul repair station as well as the MPG operation. In 2016 the rental expense for this property was \$38 thousand. This lease expired in June 2016 and Piedmont moved to the new facilities. Starting in 2014, Piedmont also leased approximately 10,000 square feet of storage space in Winston-Salem (near its previous main facility in Winston-Salem), on a month to month lease. The lease ended during 2016. In 2016 Piedmont's expense for this property was \$8 thousand.

Turbochrome operates a 135,000 square feet facility in Kiryat Gat, Israel, which supports all its business. The land on which the facility is located is leased from the ILA. The leasehold rights are for a period ending in 2045 and are recorded in Turbochrome's name. Turbochrome paid the entire lease payments due until 2045 in a one-time payment (discounted to present value).

Item 4A. Unresolved Staff Comments

Not applicable.

Item 5. Operating and Financial Review and Prospects Operating Results

The following discussion of our results of operations should be read together with our consolidated financial statements and the related notes, which appear elsewhere in this annual report. The following discussion contains forward-looking statements that reflect our current plans, estimates and beliefs and involve risks and uncertainties. Our actual results may differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to such differences include those discussed below and elsewhere in this annual report.

Overview

TAT is reliant on the robustness of the commercial and military aerospace and ground defense industries. Any downturn in these industries could weaken demand for its solutions and services and negatively impact its financial results. The commercial airline industry is cyclical and has historically been subject to fluctuations due to general economic and political conditions, such as fuel and labor costs, price competition, downturns in the global economy and national and international events.

TAT's cost of revenues for OEM operations and MRO services consists of component and material costs, direct labor costs, quality assurance costs, shipping expenses, royalties, overhead related to manufacturing and depreciation of manufacturing equipment. TAT's gross margin is affected by the proportion of its revenues generated from each of its operational segments.

The principal factors that affect the operating income of TAT's four segments, in addition to their gross profit, is the expenditure on selling and marketing expenses and general and administrative expenses. While TAT closely monitors its operating expenses to prevent unnecessary spending, we believe that these operating expenses may increase in the future in accordance with our plans to grow the business.

TAT's research and development expenses are related to new products and technologies or significant improvement of existing products and technologies.

TAT's selling and marketing expenses are related to commission payments, compensation and related expenses of TAT's sales teams, participation in trade shows, travel expenses, advertising expenses and related costs for facilities and equipment.

TAT's general and administrative expenses are related to compensation and related expenses for executive, finance and administrative personnel, professional fees such as legal, audit, SOX, internal audit, other general corporate expenses and related costs for facilities and equipment.

Sources of Revenues

TAT, directly and through its subsidiaries, provides a variety of solutions and services to the commercial and military aerospace and ground defense industries, including:

- (i) OEM of heat transfer solutions and aviation components, such as heat exchangers, pre-coolers and oil/fuel hydraulic coolers (through our Gedera facility);
- (ii) MRO services for heat transfer components and OEM of heat transfer solutions (through our Limco subsidiary);
- (iii) MRO services for aviation components (through our Piedmont subsidiary); and
- (iv) Overhaul and coating of jet engine components (through our Turbochrome subsidiary).

Edgar Filing: TAT TECHNOLOGIES LTD - Form 20-F

TAT's revenues from its four operational segments for the three years ended December 31, 2018 were as follows:

	Year Ended December 31, 2018			2017			2016		
	Revenues in Thousands	% of Total Revenues		Revenues in Thousands	% of Total Revenues		Revenues in Thousands	% of Total Revenues	
Revenues									
OEM of heat transfer solutions and aviation components	\$24,707	26.5	%	\$31,237	29.3	%	\$28,255	29.5	%
MRO services for heat transfer components and OEM of heat transfer solutions	31,344	33.6	%	34,812	32.7	%	32,429	33.9	%
MRO services for aviation components	32,487	34.9	%	33,009	31.0	%	31,630	33	%
Overhaul and coating of jet engine components	9,697	10.4	%	11,005	10.3	%	9,209	9.6	%
Eliminations	(5,057)	(5.4)	%	(3,536)	(3.3)	%	(5,729)	(6)	%
Total Revenues	\$93,178	100	%	\$106,527	100	%	\$95,794	100	%

The following table reflects the geographic breakdown of TAT's revenues for each of the three years ended December 31, 2018:

	Years Ended December 31,								
	2018			2017			2016		
	Revenues	% of		Revenues	% of		Revenues	% of	
	in	Total		in	Total		in	Total	
	Thousands	Revenues		Thousands	Revenues		Thousands	Revenues	
United States	\$54,032	58.0	%	\$59,051	55.4	%	\$57,946	60.5	%
Israel	6,924	7.4	%	9,993	9.4	%	7,670	8.0	%
Other	32,222	34.6	%	37,483	35.2	%	30,178	31.5	%
Total	\$93,178	100.0	%	\$106,527	100.0	%	\$95,794	100.0	%

Costs and Expenses

Cost of revenues. TAT's cost of revenues for OEM operations and MRO services consist of component and material costs, direct labor costs, quality assurance costs, royalties, shipping expenses, overhead related to manufacturing and depreciation of manufacturing equipment.

TAT's gross margin was affected by the proportion of TAT's revenues generated from OEM operations and MRO services in each of the reported years.

Research and development expenses, net. Research and development expenses, net are related to new products and technologies or to a significant improvement of products and technologies, net of grants and participations received.

Selling and marketing expenses. Selling and marketing expenses consist primarily of commission payments, compensation and related expenses of TAT's sales teams, participation in trade shows, travel expenses, advertising expenses and related costs for facilities and equipment.

General and administrative expenses. General and administrative expenses consist of compensation and related expenses for executive, finance and administrative personnel, professional fees such as legal, audit, SOX, internal audit, other general corporate expenses and related costs for facilities and equipment.

Other income (expense). Other income (expense) results from capital gain on sale of property and equipment and onetime expenses.

Gain on bargain purchase. Gain on bargain purchase is related to the acquisition of Turbochrome and represents the excess of the estimated fair value of the assets and liabilities acquired over the purchase price.

Financial income (expense), net. Financial income (expense), net consists of exchange rate and interest income or expense. Interest income or expense relates to the interest received from or paid to banks and changes in the rate of the NIS or other currencies against the U.S. dollar.

Tax expense (income). Tax expense consists of Israeli and U.S. federal and state taxes on the income of TAT's business and changes in deferred tax assets or liabilities.

Critical Accounting Policies and Estimates

TAT's consolidated financial statements are prepared in accordance with U.S. GAAP. These accounting principles require management to make certain estimates, judgments and assumptions based upon information available at the time that they are made, historical experience and various other factors that are believed to be reasonable under the circumstances. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the periods presented. While all the accounting policies impact the financial statements, certain policies may be viewed to be critical. These policies are those that are both most important to the portrayal of TAT's financial condition and results of operations and require management's most difficult, subjective and complex judgments and estimates. Actual results could differ from those estimates.

In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. GAAP and does not require management's judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would not produce a materially different result. Management has reviewed these critical accounting policies and related disclosures with TAT's audit committee.

TAT's management believes the significant accounting policies which affect management's more significant judgments and estimates used in the preparation of TAT's consolidated financial statements and which are the most critical to aid in fully understanding and evaluating the reported financial results include the following:

- Revenue recognition
- Inventory valuation
- Income taxes
- Allowance for doubtful accounts

Revenue Recognition

The TAT Group generates its revenues from the sale of OEM products and systems, providing MRO services (remanufacture, maintenance, repair and overhaul services and long - term service contracts) and parts services.

In May 2014, FASB issued Accounting Standards Update "Revenue from Contracts with Customers" (Topic 606). According to the standard, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the performance obligation is satisfied.

Other major provisions include capitalization of certain contract costs, consideration of the time value of money in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances.

The guidance permitted the use of either a retrospective or cumulative effect transition method. The Company has implemented the new standard on its effective date (January 1, 2018) to uncompleted contracts as of that date, in accordance with the transitional directive which allows recognition of the cumulative effect of the initial application as an adjustment to the opening balance of retained earnings as of January 1, 2018. The adoption of ASC 606 did not impact the Company's balance sheet or opening balance of retained earnings. The Company did not provide the effects in the current reporting period of the standard as compared to the guidance that was in effect before the change, since these effects were immaterial.

The company has adopted the following exemptions and accounting policies:

- a. The Company has chosen to account for shipping as a fulfillment costs, in cases in which the shipping occurs after the customer has obtained control of a good.
- b. The Company has chosen not to adjust the promised amount of consideration for the effects of a significant financing component, in cases in which the Company expects, at contract inception, that the period between when the Company transfers a promised good or service to the customer and when the customer pays for that good or service will be one year or less.
- c. The Company has chosen to present all sales taxes collected from customers on a net basis.

The group recognizes revenues from the sale of OEM products when it satisfies a performance obligation, i.e. when or as the customer obtains control upon product shipment. The Group does not grant a right of return.

The group recognizes revenues from MRO services over time as it satisfies performance obligations.

Revenues from maintenance contracts are recognized over the contract period in proportion to the costs expected to be incurred in performing services under the contract. The Group estimates the costs that are expected to be incurred based on its historical experience. The costs incurred related to the maintenance contracts are not incurred on a straight-line basis, as the timing to provide the maintenance services is dependent on when parts under these contracts require maintenance. Therefore, the Group accrues revenue as costs are incurred. These contracts are reviewed on a timely basis and adjusted (if required) based on total expected cost.

Prior to January 1, 2018 and before the adoption of ASC 606, revenues from multi-year, fixed price contracts for OEM customers were recognized when a product was shipped (and title passed) to the customer.

Revenues from MRO services were generally recognized when services were completed. In cases in which contracts required exchanging a defective landing gear for a restored gear, the non-refundable minimum amounts from these contracts were recognized on the exchange date (delivery of the product has occurred), and any additional amounts billed to the customer for excess hours of repair, were recognized when the customer approved the price for these additional services.

Revenues from maintenance contracts were recognized over the contract period in proportion to the costs expected to be incurred in performing services under the contract. The Group estimated the costs that were expected to be incurred based on its historical experience. The costs incurred related to the maintenance contracts were not incurred on a straight-line basis, as the timing to provide the maintenance services is dependent on when parts under these contracts require maintenance. Therefore, the Group accrued revenue as costs were incurred. These contracts were reviewed on a timely basis and adjusted (if required) based on total expected cost.

Inventory valuation

Inventories are stated at the lower of cost and net realizable value. Cost of raw material and parts is determined using the moving average basis. Cost of work in progress and finished products is calculated based on actual costs and the capitalized production costs, mainly labor and overhead and is determined based on the average basis. TAT's policy for valuation of inventory and commitments to purchase inventory, including the determination of obsolete or excess inventory, requires it to perform a detailed assessment of inventory at each balance sheet date which includes a review of, among other factors, an estimate of future demand for products within specific time frames, valuation of existing inventory, as well as product lifecycle and product development plans. The business environment in which TAT operates, the wide range of products that TAT offers and the relatively short sales cycles TAT experiences, all contribute to the exercise of judgment relating to maintaining and writing-off of inventory levels. The estimates of future demand that TAT uses in the valuation of inventory are the basis for its revenue forecast, which is also consistent with its short-term manufacturing plan. Inventory reserves are also provided to cover risks arising from slow-moving items. Inventory management remains an area of management focus as TAT balances the need to maintain strategic inventory levels to ensure competitive lead times against the risk of inventory obsolescence due to changing technology and customer requirements. TAT writes down obsolete or slow-moving inventory in an amount equal to the difference between the cost of inventory and the net realizable value based upon assumptions about future demand, market conditions and sale forecasts.

If actual market conditions are less favorable than TAT anticipates, additional inventory write-downs may be required.

Income Taxes

TAT operates within multiple tax jurisdictions and is subject to audits in these jurisdictions. These audits can involve complex issues, which may require an extended period of time to resolve. In management's opinion, adequate provisions for income taxes have been made for all years. Although management believes that its estimates are reasonable, no assurance can be given that the final tax outcome of these issues will not be different than those reflected in its historical income tax provisions.

TAT uses the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial statement and tax bases of assets and liabilities and net operating loss and credit carry forwards using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established when it is more likely than not that some portion of the deferred tax assets will not be realized. To the extent that TAT's decisions and assumptions and historical reporting are determined not to be compliant with applicable tax laws, TAT may be subject to adjustments in its reported income for tax purposes as well as interest and penalties.

According to an acceptable interpretation that prescribes a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. The interpretation also provides guidance on de-recognition of tax positions, classification on the balance sheet, interest and penalties, accounting in interim periods, disclosure and transition. In addition, the interpretation requires significant judgment with respect to determining what constitutes an individual tax position as well as assessing the outcome of each tax position. Changes in judgment as to recognition or measurement of tax positions can materially affect the estimate of the effective tax rate and consequently, affect our operating results.

U.S. subsidiaries are taxed based on federal and state tax laws. The statutory tax rate for 2017 and 2016 was 38%.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was enacted into law. The new legislation represents fundamental and dramatic modifications to the U.S. tax system. The Act contains several key tax provisions that impacted the Company's U.S. subsidiaries, including the reduction of the U.S. federal corporate income tax rate from an effective rate of 35% to a flat rate of 21%, effective January 1, 2018. Other significant changes under the Act include, among others, a one-time repatriation tax on accumulated foreign earnings, a limitation of net operating loss deduction to 80% of taxable income, and indefinite carryover of post-2017 net operating losses. The Act also repeals the corporate alternative minimum tax for tax years beginning after December 31, 2017. Losses generated prior to January 1, 2018 will still be subject to the 20-year carryforward limitation and the alternative minimum tax. Other potential impacts due to the Act include the repeal of the domestic manufacturing deduction, modification of taxation of controlled foreign corporations, a base erosion anti-abuse tax, modification of interest expense limitation rules, modification of limitation on deductibility of excessive executive compensation, and taxation of global intangible low-taxed income.

Allowances for Doubtful Accounts

TAT performs ongoing credit evaluations of its customers' financial condition and requires collateral as deemed necessary. Allowances for doubtful accounts are maintained for estimated losses resulting from the inability of TAT's customers to make payments. In judging the adequacy of the allowance for doubtful accounts, TAT considers multiple factors including the aging of receivables, historical bad debt experience and the general economic environment. Management applies considerable judgment in assessing the realization of receivables, including assessing the probability of collection and the current credit worthiness of each customer. If the financial condition of TAT's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Key Indicators

TAT's management evaluates its performance by focusing on key performance indicators, which are revenues, sources of revenues, gross profit and operating income. These key performance indicators are primarily affected by the competitive landscape in which TAT operates and its ability to meet the challenges posed.

The following table presents, for the periods indicated, information concerning TAT's results of operations:

	Year Ended December 31		
	2018	2017	2016
	(in thousands)		
Revenues			
OEM of heat transfer solutions and aviation components	\$24,707	31,237	28,255
MRO services for heat transfer components and OEM of heat transfer solutions	31,344	34,812	32,429
MRO services for aviation components	32,487	33,009	31,630
Overhaul and coating of jet engine components	9,697	11,005	9,209
Eliminations	(5,057)	(3,536)	(5,729)
Total revenues	93,178	106,527	95,794
Cost of revenues			
OEM of heat transfer solutions and aviation components	25,612	25,535	24,028
MRO services for heat transfer components and OEM of heat transfer solutions	27,659	26,085	23,440
MRO services for aviation components	28,561	29,026	27,423
Overhaul and coating of jet engine components	8,298	9,057	7,610
Eliminations	(5,343)	(3,620)	(5,744)
Total cost of revenues	84,787	86,083	76,757
Gross profit	8,391	20,444	19,037
Research and development costs, net	553	731	1,140
Selling and marketing	4,913	4,974	3,876
General and administrative	8,559	9,409	10,023
Other expenses (income)	(4)	53	(138)
	14,021	15,167	14,901
Operating income (loss)	(5,630)	5,277	4,136
Financial expense, net	(102)	(338)	(154)
Income (loss) before taxes on income (tax benefit)	(5,732)	4,939	3,982
Taxes on income (tax benefit)	(1,464)	2,333	3,865
income (loss) before equity investment	(4,268)	2,606	117
Share in results of affiliated company and impairment of share in affiliated companies	(140)	(210)	(55)
Net income (loss)	\$(4,408)	\$2,396	\$62

The following table presents, for the periods indicated, information concerning TAT's results of operations as a percentage of revenues:

	Year Ended December 31,		
	2018	2017	2016
Revenues			
OEM of heat transfer solutions and aviation components	26.5 %	29.3 %	29.5 %
MRO services for heat transfer components and OEM of heat transfer solutions	33.6	32.7	33.9
MRO services for aviation components	34.9	31.0	33.0
Overhaul and coating of jet engine components	10.4	10.3	9.6
Eliminations	(5.4)	(3.3)	(6)
Total revenues	100	100	100
Cost of revenues			
OEM of heat transfer solutions and aviation components	27.5	24.0	25.1
MRO services for heat transfer components and OEM of heat transfer solutions	29.7	24.5	24.5
MRO services for aviation components	30.6	27.2	28.6
Overhaul and coating of jet engine components	8.9	8.5	7.9
Eliminations	(5.7)	(3.4)	(6)
Cost of revenues	91	80.8	80.1
Gross profit	9	19.2	19.9
Research and development costs, net	0.6	0.7	1.2
Selling and marketing	5.3	4.7	4
General and administrative	9.2	8.8	10.5
Other income	*	*	(0.1)
	15.1	14.2	15.6
Operating income (loss)	(6.1)	5.0	4.3
Financial expense, net	(0.1)	(0.3)	(0.2)
Income (loss) before taxes on income (tax benefit)	(6.2)	4.7	4.1
Taxes on income (tax benefit)	(1.6)	2.2	4.0
income (loss) before equity investment	(4.6)	2.5	0.1
Share in results of affiliated company and impairment of share in affiliated companies	(0.1)	(0.2)	*
Net income (loss)	(4.7)%	2.3 %	0.1 %

* Less than 0.1 percent

Year ended December 31, 2018 compared with Year ended December 31, 2017

Revenues. Total revenues were \$93.2 million for the twelve months ended December 31, 2018, compared to \$106.5 million for the twelve months ended December 31, 2017, a decrease of 12.5%. This reflects (i) the decrease in revenues in the OEM of heat transfer solutions and aviation accessories segment; (ii) the decrease in revenues in the MRO services for heat transfer components and OEM of heat transfer solutions segment; (iii) the decrease in revenues in the MRO services for aviation components segment; and (iv) the decrease in revenue in the overhaul and coating of jet engine components segment.

Revenues from OEM of heat transfer solutions and aviation components. Revenues from this operating segment decreased to \$24.7 million for the year ended December 31, 2018 from \$31.2 million for the year ended December 31, 2017, a decrease of 20.9% mainly due to delay in order intake

Revenues from MRO services for heat transfer components and OEM of heat transfer solutions. Revenues from the MRO services for heat transfer components and OEM of heat transfer solutions operating segment decreased to \$31.4 million for the year ended December 31, 2018, from \$34.8 million for the year ended December 31, 2017, a decrease of 10%, mainly due to decline in demand for maintenance services among existing customers.

Revenues from MRO services for aviation components. Revenues from MRO services for aviation components operating segment decreased to \$32.5 million for the year ended December 31, 2018, from \$33.0 million for the year ended December 31, 2017, a decrease of 1.6%, mainly due to decline in demand for maintenance services among existing customers.

Revenues from overhaul and coating of jet engine components. Revenues from overhaul and coating of jet engine components segment decreased to \$9.7 million for the year ended December 31, 2018, from \$11.0 million for the year ended December 31, 2017 a decrease of 11.9%, mainly due to lower demand for overhaul and coating of jet engine components.

Cost of revenues. Cost of revenues was \$84.8 million for the twelve months ended December 31, 2018, compared to the \$86.0 million for the twelve months ended December 31, 2017, a decrease of 1.5%. This is primarily due to the decrease in revenue.

Cost of revenues as a percentage of revenues was 91% for the twelve months ended December 31, 2018, compared to 80.8% for the twelve months ended December 31, 2017.

Cost of revenues for OEM of heat transfer solutions and aviation accessories. Cost of revenues for this operating segment was \$25.6 million for the year ended December 31, 2018, with no significant change from \$25.5 million for the year ended December 31, 2017..

Cost of revenues as a percentage of revenues in this segment increased to 103.7% in the year ended December 31, 2018, from 81.7% for the year ended December 31, 2017. The increase is primarily the result of lower sales compared to 2017 and a change in product mix in which more products with lower margins were sold during 2018.

Cost of revenues for MRO services for heat transfer components and OEM of heat transfer solutions. Cost of revenues for the MRO services for heat transfer components and OEM of heat transfer solutions operating segment increased to \$27.7 million for the year ended December 31, 2018 from \$26.1 million for the year ended December 31, 2017, an increase of 6%. The increase is primarily attributable to the increase in labor and material costs.

Cost of revenues as a percentage of revenues in this segment increased to 88.2% in the year ended December 31, 2018 from 74.9% for the year ended December 31, 2017. The increase is primarily the result of lower sales compared to 2017 and the increase in labor and material costs.

Cost of revenues for MRO services for aviation components. Cost of revenues for MRO services for aviation components operating segment decreased to \$28.6 million for the year ended December 31, 2018 from \$29.0 million for the year ended December 31, 2017, a decrease of 1.6%. The decrease is primarily attributable to lower sales compared to 2017.

Cost of revenues as a percentage of revenues in this segment estimated at 87.9% in the year ended December 31, 2018 unchanged from the year ended December 31, 2017.

Cost of revenues for overhaul and coating of jet engine components. Cost of revenues for the overhaul and coating of jet engine components segment decreased to \$8.3 million for the year ended December 31, 2018 from \$9.1 million for the year ended December 31, 2017. The decrease is primarily attributable to lower sales compared to 2017.

Cost of revenues as a percentage of revenues in this segment increased to 85.6% in the year ended December 31, 2018 from 82.3% in the year ended December 31, 2017. The increase is primarily the result of lower sales compared to 2017 and a change in product mix in which more products with lower margins being sold during 2018..

Research and development, net. Research and development expenses were \$0.6 million for the twelve months ended December 31, 2018, compared to \$0.7 million for the twelve months ended December 31, 2017.

Research and development expenses as a percentage of revenues were 0.6% for the twelve months ended December 31, 2018 compared to 0.7% for the twelve months ended December 31, 2017. TAT expects to invest in the future additional resources in research and development activities, and accordingly will continue to incur and record additional research and development expenses in the coming years.

Selling and marketing. Selling and marketing expenses were \$5.0 million for the twelve months ended December 31, 2018, with no change from \$5.0 million for the twelve months ended December 31, 2017.

Selling and marketing expenses as a percentage of revenues were 5.3% for the twelve months ended December 31, 2018, compared to 4.7% for the twelve months ended December 31, 2017, mainly due to the decrease in sales during 2018 compared to 2017. TAT expects to invest additional resources in selling and marketing activities in the coming years.

General and administrative. General and administrative expenses were \$8.6 million for the twelve months ended December 31, 2018, compared to \$9.4 million for the twelve months ended December 31, 2017, a decrease of 9%. The decrease in general and administrative expenses was mainly attributable to decrease in labor costs and direct expenses.

General and administrative expenses as a percentage of revenues were 9.2% for the twelve months ended December 31, 2018, compared to 8.8% for the twelve months ended December 31, 2017, mainly due to the decrease in sales during 2018 compared to 2017.

Financial expenses, net. Financial expenses, net for the twelve months ended December 31, 2018 were \$0.1 million, compared to \$0.3 million for the twelve months ended December 31, 2017.

Taxes on income (tax benefit). Tax benefit for the twelve months ended December 31, 2018, amounted to \$1.5 million, compared to \$2.3 million taxes on income for the twelve months ended December 31, 2017

Share in results of equity investment of affiliated companies. Share in results of equity investment of affiliated companies for the twelve months ended December 31, 2018, amounted to a loss of \$ 0.1 million during 2018 compared to a loss of \$0.2 million for the twelve months ended December 31, 2017.

Year ended December 31, 2017 compared with Year ended December 31, 2016

Revenues. Total revenues were \$106.5 million for the twelve months ended December 31, 2017, compared to \$95.8 million for the twelve months ended December 31, 2016, an increase of 11.2% all of which was organic growth. This reflects (i) the increase in revenues in the OEM of heat transfer solutions and aviation accessories segment; (ii) the increase in revenues in the MRO services for heat transfer components and OEM of heat transfer solutions segment; (iii) the increase in revenues in the MRO services for aviation components segment; and (iv) the increase in revenue in the overhaul and coating of jet engine components segment.

Revenues from OEM of heat transfer solutions and aviation components. Revenues from this operating segment increased to \$31.2 million for the year ended December 31, 2017 from \$28.3 million for the year ended December 31, 2016, an increase of 10.6% mainly due to increase in sales of heat transfer solutions.

Revenues from MRO services for heat transfer components and OEM of heat transfer solutions. Revenues from the MRO services for heat transfer components and OEM of heat transfer solutions operating segment increased to \$34.8 million for the year ended December 31, 2017, from \$32.4 million for the year ended December 31, 2016, an increase of 7.3%, mainly due to higher demand for MRO services for heat transfer components and OEM of heat transfer solutions.

Revenues from MRO services for aviation components. Revenues from MRO services for aviation components operating segment increased to \$33.0 million for the year ended December 31, 2017, from \$31.6 million for the year ended December 31, 2016, an increase of 4.4%, mainly due to higher demand for MRO services for aviation components.

Revenues from overhaul and coating of jet engine components. Revenues from overhaul and coating of jet engine components segment increased to \$11.0 million for the year ended December 31, 2017, from \$9.2 million for the year ended December 31, 2016 an increase of 19.5%, mainly due to higher demand for overhaul and coating of jet engine components.

Cost of revenues. Cost of revenues was \$86.0 million for the twelve months ended December 31, 2017, compared to the \$76.8 million for the twelve months ended December 31, 2016, an increase of 12.2%. This is primarily attributable to the increase in revenue.

Cost of revenues as a percentage of revenues was 80.8% for the twelve months ended December 31, 2017, compared to 80.1% for the twelve months ended December 31, 2016.

Cost of revenues for OEM of heat transfer solutions and aviation accessories. Cost of revenues for this operating segment increased to \$25.5 million for the year ended December 31, 2017, from \$24.0 million for the year ended December 31, 2016, an increase of 6.3%. The increase is primarily attributable to higher sales compared to 2016.

Cost of revenues as a percentage of revenues in this segment decreased to 81.7% in the year ended December 31, 2017, from 85.0% for the year ended December 31, 2016. The decrease is primarily the result of a change in product mix in which more products with higher margins being sold during 2017.

Cost of revenues for MRO services for heat transfer components and OEM of heat transfer solutions. Cost of revenues for the MRO services for heat transfer components and OEM of heat transfer solutions operating segment increased to \$26.1 million for the year ended December 31, 2017 from \$23.4 million for the year ended December 31, 2016, an increase of 11.3%. The increase is primarily attributable to higher sales compared to 2016.

Cost of revenues as a percentage of revenues in this segment increased to 74.9% in the year ended December 31, 2017 from 72.3% for the year ended December 31, 2016. The increase is primarily the result of a change in product mix in which more products with lower margins being sold during 2017.

Cost of revenues for MRO services for aviation components. Cost of revenues for MRO services for aviation components operating segment increased to \$29.0 million for the year ended December 31, 2017 from \$27.4 million for the year ended December 31, 2016, an increase of 5.8%. The increase is primarily attributable to higher sales compared to 2016.

Cost of revenues as a percentage of revenues in this segment increased to 87.9% in the year ended December 31, 2017 from 86.7% for the year ended December 31, 2016. The increase is primarily the result of a change in product mix in which more products with lower margins being sold during 2017.

Cost of revenues for overhaul and coating of jet engine components. Cost of revenues for the overhaul and coating of jet engine components segment increased to \$9.1 million for the year ended December 31, 2017 from \$7.6 million for the year ended December 31, 2016. The increase is primarily attributable to higher sales compared to 2016.

Cost of revenues as a percentage of revenues in this segment decreased to 82.3% in the year ended December 31, 2017 from 82.6% in the year ended December 31, 2016. The decrease is primarily the result of a change in product mix in which more products with higher margins being sold during 2017.

Research and development, net. Research and development expenses were \$0.7 million for the twelve months ended December 31, 2017, compared to \$1.1 million for the twelve months ended December 31, 2016.

Research and development expenses as a percentage of revenues were 0.7% for the twelve months ended December 31, 2017 compared to 1.2% for the twelve months ended December 31, 2016.

Selling and marketing. Selling and marketing expenses were \$5.0 million for the twelve months ended December 31, 2017, compared to \$3.9 million for the twelve months ended December 31, 2016, an increase of 28.3% mainly due to an increase in labor and direct expenses.

Selling and marketing expenses as a percentage of revenues were 4.7% for the twelve months ended December 31, 2017, compared to 4.0% for the twelve months ended December 31, 2016. TAT expects to invest additional resources in selling and marketing activities in the coming years.

General and administrative. General and administrative expenses were \$9.4 million for the twelve months ended December 31, 2017, compared to \$10.0 million for the twelve months ended December 31, 2016, a decrease of 6.1%. The decrease in general and administrative expenses was mainly attributable to decrease in labor and direct expenses.

General and administrative expenses as a percentage of revenues were 8.8% for the twelve months ended December 31, 2017, compared to 10.6% for the twelve months ended December 31, 2016.

Other expenses (income). Other expenses were \$0.1 million for the twelve months ended December 31, 2017, compared to an income of \$0.1 million for the twelve months ended December 31, 2016. Other expenses in 2017 are mainly attributed to the sale of fixed assets and other income in 2016 is mainly attributable to acquisition expenses related to the Turbochrome acquisition.

Financial expenses, net. Financial expenses, net for the twelve months ended December 31, 2017 were \$0.3 million, compared to \$0.2 million for the twelve months ended December 31, 2016.

Taxes on income. Taxes on income for the twelve months ended December 31, 2017, amounted to \$2.3 million, compared to \$3.9 million for the twelve months ended December 31, 2016. The decrease is mainly attributed to the fact that 2016 includes a deferred tax liability of \$2.7 million in 2016 resulting from actual distribution of earnings from TAT's U.S.-based subsidiaries and the possibility of future distribution of earnings from such U.S. subsidiaries. 2017 is including an adjustment for deferred tax assets of \$0.4 million (expenses) related to The U.S. Tax Cuts and Jobs Act (the Tax Act) that was enacted on December 22, 2017 and introduces significant changes to U.S. income tax law. Effective in 2018, the Tax Act reduces the U.S. statutory tax rate from 35% to 21%.

Share in results of equity investment of affiliated companies. Share in results of equity investment of affiliated companies for the twelve months ended December 31, 2017, amounted to a loss of \$ 0.2 million during 2017 compared to \$0.1 million for the twelve months ended December 31, 2016.

Conditions in Israel

TAT is incorporated under the laws of the State of Israel, and its principal executive offices and manufacturing and research and development facilities are located in Israel. See "RISK FACTORS" for a description of governmental, economic, fiscal, monetary or political policies or factors that have materially affected or could materially affect TAT's operations.

Trade Relations

Israel is a member of the United Nations, the International Monetary Fund, the International Bank for Reconstruction and Development and the International Finance Corporation. Israel is a member of the World Trade Organization and is a signatory to the General Agreement on Tariffs and Trade. In addition, Israel has been granted preferences under the Generalized System of Preferences from the United States, Australia, Canada and Japan. These preferences allow Israel to export the products covered by such programs either duty-free or at reduced tariffs.

Israel and the European Union Community, known now as the “European Union,” concluded a Free Trade Agreement in July 1975 that confers some advantages with respect to Israeli exports to most European countries and obligates Israel to lower its tariffs with respect to imports from these countries over a number of years. In 1985, Israel and the United States entered into an agreement to establish a Free Trade Area. The Free Trade Area has eliminated all tariff and some non-tariff barriers on most trade between the two countries. On January 1, 1993, an agreement between Israel and the European Free Trade Association, known as the “EFTA,” established a free-trade zone between Israel and the EFTA nations. In November 1995, Israel entered into a new agreement with the European Union, which includes a redefinition of rules of origin and other improvements, such as allowing Israel to become a member of the Research and Technology programs of the European Union. In recent years, Israel has established commercial and trade relations with a number of other nations, including Russia, China, India, Turkey and other nations in Eastern Europe and the Asia-Pacific region.

Impact of Currency Fluctuation and of Inflation

TAT reports its financial results in dollars and receives payment primarily in dollars or dollar-linked NIS for all of its sales while it incurs a portion of its expenses, principally salaries and related personnel expenses in Israel, in NIS. Additionally, certain assets, as well as a portion of its liabilities, are denominated in NIS. Therefore, the dollar cost of its operations is influenced by the extent to which any inflation in Israel is offset on a lagging basis, or is not offset by the devaluation of the NIS in relation to the U.S. dollar. When the rate of inflation in Israel exceeds the rate of devaluation of the NIS against the U.S. dollar, the dollar cost of operations in Israel increases. If the dollar cost of operations in Israel increases, its dollar-measured results of operations will be adversely affected. It is uncertain whether TAT will be materially and adversely affected in the future if inflation in Israel exceeds the devaluation of the NIS against the dollar or if the timing of the devaluation lags behind inflation in Israel.

Because exchange rates between the NIS and the dollar fluctuate continuously, exchange rate fluctuations and especially larger periodic devaluations will have an impact on TAT’s profitability and period-to-period comparisons of its results. The effects of foreign currency re-measurements are reported in TAT’s consolidated financial statements in current operations. Although TAT hedges a portion of its exchange rate risk through the use of forward contracts and other derivative instruments, there is no certainty that future results of operations may not be materially adversely affected by currency fluctuations.

Corporate Tax Rate

Israeli companies are generally subject to corporate tax on their taxable income (including capital gains). The regular corporate tax rate for Israel was 24% for the year ended December 31, 2017 and 23% for the year ended December 31, 2018.

However, the rate is effectively reduced for income derived from Approved and Beneficiary Enterprises, as defined by the Law for the Encouragement of Capital Investments, 1959, as amended (the "Investment Law"). Until December 31, 2010, TAT elected to participate in the alternative package of tax benefits for its current Approved and Beneficiary Enterprises. Pursuant to such law, the income derived from those enterprises was exempt from Israeli corporate tax for a specified benefit period (except to the extent that dividends are distributed from tax exempt income generated from the Approved and Beneficiary Enterprises or during the tax-exemption period other than upon liquidation) and subject to reduced corporate tax rates for an additional period.

Certain amendments to the Investment Law became effective in January 2011 (the “2011 Amendment”). Under the 2011 Amendment, income derived by ‘Preferred Companies’ from ‘Preferred Enterprises’ (both as defined in the 2011 Amendment) would be subject to a uniform reduced corporate tax rate as opposed to the incentives that are limited to income from Approved or Beneficiary Enterprises during their benefits period. According to the 2011 Amendment, the uniform tax rate on such income, referred to as ‘Preferred Income’, would be 10% in areas designated as Israel’s Development Zone A and 15% elsewhere in Israel during 2011-2012, 7% and 12.5%, respectively, in 2013-2014, and 6% and 12%, respectively, thereafter. Dividends distributed from taxable income derived from Preferred Income would be subject to a 15% tax (or lower, if so provided under an applicable tax treaty), which would generally be withheld by the distributing company. While a company may incur additional tax liability in the event of distribution of dividends from tax exempt income generated from its Approved and Beneficiary Enterprises, no additional tax liability will be incurred by the company in the event of distribution of dividends from income taxed in accordance with the 2011 Amendment.

Under the transitional provisions of the 2011 Amendment, TAT elected to irrevocably implement the 2011 Amendment with respect to its existing Approved and Beneficiary Enterprises while waiving benefits provided under the legislation prior to the 2011 Amendment.

According to a more recent amendment which was announced in August 2013 and implemented in 2014, dividends paid out of income attributed to a Preferred Enterprise will be subject to a withholding tax rate of 20% (instead of 15%). In addition, tax rates under the Preferred Enterprise were also raised effective as of January 1, 2014, to 9% in Zone A and 16% elsewhere (instead of the 6% and 12%, respectively) with respect to Preferred Income as defined in the Investment law. In 2017, following the approval of the Israeli Budget Law for 2017 and 2018 (the “Budget Law”), the tax rate under a Preferred Enterprise with respect to Preferred Income as defined in the Investment law, generated in a Development Zone A will drop effective as of January 1, 2017, to 7.5%, while the tax rate of Preferred Income derived elsewhere in Israel remains 16%.

Certain investment income derived by TAT from investments may not be regarded by the Israeli tax authorities as income from TAT's Preferred Enterprise and consequently may be taxed at the regular statutory rate in Israel.

Certain of TAT's subsidiaries operate in and are subject to the tax laws of various other jurisdictions, primarily the United States. TAT's U.S. subsidiaries are taxed based on federal and state tax laws. The statutory tax of TAT's U.S. subsidiaries was 38% in each of the years ended December 31, 2017 and 2016.

The U.S. Tax Cuts and Jobs Act (the Tax Act) was enacted on December 22, 2017 and introduces significant changes to U.S. income tax law. Effective in 2018, the Tax Act reduces the U.S. statutory tax rate from 35% to 21%.

Recently Issued Accounting Standards

In June 2016, the FASB issued guidance on financial instruments. The guidance replaces the current incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a (1) broader range of reasonable and supportable information to inform credit loss estimates. The guidance will be effective for the fiscal year beginning on January 1, 2020, including interim periods within that year. The Company is currently evaluating the potential effect of the guidance on its consolidated financial statements.

In February 2016, the FASB which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight line basis over the term of the lease, (2) respectively. A lessee is also required to record a right-of-use (ROU) asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less may be accounted for similar to existing guidance for operating leases today. ASC 842 supersedes the previous leases standard, ASC 840 Leases. The standard is effective on January 1, 2019, with early adoption permitted. The Company expects that adoption of the standard will result in recognition of approximately \$7.3 million of lease assets and lease liabilities as of January 1, 2019 on the Company's Consolidated Balance Sheets.

In August 2017, the FASB issued Accounting Standard Update which targets improvements to accounting for hedging activities which amends and simplifies existing guidance in order to allow companies to more accurately (3) present the economic effects of risk management activities in the financial statements. The guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. The new standard will not have a material effect on the Company's financial statements upon adoption.

Liquidity and Capital Resources

As of December 31, 2018, TAT had cash and cash equivalents and short-term bank deposits of \$16 million, compared with cash and cash equivalents and short-term bank deposits of \$18 million as of December 31, 2017.

Capital expenditures for the years ended December 31, 2018, 2017 and 2016 were approximately \$4.3 million, \$3.5 million and \$5.7 million, respectively. TAT funded these expenditures mainly from cash flows from operations. TAT expects that its available cash and cash equivalents and cash flow generated from operations will be sufficient to fund its capital expenditures.

Management believes that anticipated cash flow from operations and its current cash balances will be sufficient to meet its cash requirements for at least 12 months. TAT's future capital requirements will depend on many factors, including its rate of revenue growth, the expansion of its selling and marketing activities, costs associated with expansion into new markets and the timing of the introduction of new products and services.

Cash Flows

The following table summarizes TAT's cash flows for the periods presented:

	Year Ended December 31, (in thousands)		
	2018	2017	2016
Net cash provided by operating activities	\$2,080	\$2,496	\$5,521
Net cash provided by (used in) investing activities	(3,841)	(3,559)	594
Net cash provided by (used in) financing activities	197	(2,856)	(3,370)
Net increase (decrease) in cash and cash equivalents	(1,564)	(3,919)	2,745
Cash and cash equivalents at beginning of the year	17,514	21,433	18,688
Cash and cash equivalents at end of the year	\$15,950	\$17,514	\$21,433

The net cash provided by operating activities for the year ended December 31, 2018, amounted to approximately \$2 million, compared to net cash provided by operating activities of \$2.5 million for the year ended December 31, 2017 and net cash provided by operating activities of \$5.5 million for the year ended December 31, 2016.

Net cash provided by operating activities for the year ended December 31, 2018 was principally derived from the following adjustments of non-cash line items: an upwards adjustment of \$4.2 million for depreciation and amortization; an upward adjustment of \$6.8 million for decrease in trade accounts receivable; an upward adjustment of \$0.4 million for loss from derivatives; and an upward adjustment of \$0.3 million for increase in share based compensation. This was offset by \$4.5 million loss; a downward adjustment of \$1.6 million for increase in other account receivables; a downward adjustment of \$2 million for decrease in accrued expenses; a downward adjustment of \$1 million for decrease in trade accounts payable; and a downward adjustment of \$0.6 million for decrease in liability in respect of employee rights upon retirement

Net cash provided by operating activities for the year ended December 31, 2017 was principally derived from \$2.4 million of net income and from the following adjustments of non-cash line items: an upwards adjustment of \$3.9 million for depreciation and amortization; an upward adjustment of \$0.6 million for increase in accounts payable; an upward adjustment of \$0.4 million for deferred income tax, net; an upward adjustment of \$0.3 million for increase in provision for doubtful accounts; and an upward adjustment of \$0.5 million for decrease in other accounts receivables. This was offset by a downward adjustment of \$4.5 million for increase in trade accounts receivable; a downward adjustment of \$1.5 million for decrease in accrued expenses; and a downward adjustment of \$0.5 million for gain from derivatives.

Net cash provided by operating activities for the year ended December 31, 2016 was principally derived from \$0.1 million of net income and from the following adjustments of non-cash line items: an upwards adjustment of \$3.6 million for depreciation and amortization; an upward adjustment of \$2.5 million for increase in other accounts payable and accrued expenses; an upward adjustment of \$1.7 million for deferred income tax, net; an upward adjustment of \$1.5 million for decrease in other accounts receivables; and an upward adjustment of \$1.2 million for increase in trade accounts payable. This was offset by a downward adjustment of \$2.4 million for increase in trade accounts receivable; and a downward adjustment of \$2.7 million for increase in inventory.

Net cash used in investing activities was approximately \$3.9 million for the year ended December 31, 2018, compared to net cash used in investing activities of \$3.6 million for the year ended December 31, 2017 and net cash provided by investing activities of \$0.6 million for the year ended December 31, 2016.

Of the cash used in investing activities in the year ended December 31, 2018, approximately \$4.3 million was used for purchase of property and equipment, primarily production equipment and building improvements. This was partially offset by maturities of short-term deposits in the amount of \$0.5 million

Of the cash used in investing activities in the year ended December 31, 2017, approximately \$3.5 million was used for purchase of property and equipment, primarily production equipment and building improvements and \$0.4 million for investment in affiliated company. This was partially offset by maturities of short-term deposits in the amount of \$0.5 million.

Of the cash provided by investing activities in the year ended December 31, 2016, approximately \$7.2 million was provided from maturities of short-term deposits. This was partially offset by the purchase of property and equipment, primarily production equipment and building improvements, in an amount of approximately \$5.7 million and \$ 0.9 million from investment in affiliated company.

Net cash provided by financing activities was approximately \$0.2 million for the year ended December 31, 2018, compared to net cash used in financing activities of approximately \$2.9 million for the year ended December 31, 2017 and net cash used in financing activities of approximately \$3.4 million for the year ended December 31, 2016.

In the year ended December 31, 2018, the net cash provided by financing activities was primarily attributable to exercise of options.

In the year ended December 31, 2017, the net cash used in financing activities was primarily attributable to a payment of \$3.0 million of cash dividend to our shareholders.

In the year ended December 31, 2016, the net cash used in financing activities was primarily attributable to a payment of \$3.0 million of cash dividend to our shareholders.

A. Research and Development, Patents and Licenses

Not applicable.

B. Trend Information

In recent years, the aerospace industry in which we operate has been impacted by the increase in number of commercial and defense aircraft, increase in commercial passenger traffic and a corresponding increase in airlines' revenue. There is no assurance that these trends will continue in the future. Commercial carriers remain committed to their efforts to reduce cost of MRO activities and increase efficiencies.

We have also witnessed consolidation in the aerospace industry in recent years which has affected competition. This consolidation decreased the number of competitors but increased the relative size and resources of our competitors. However, we believe in our ability to compete on the basis of our deep know-how, manufacturing expertise and long-term relationship with our customers.

C. Off-Balance Sheet Arrangements

We are not a party to any material off-balance sheet arrangements. In addition, we have no unconsolidated special purpose financing or partnership entities that are likely to create material contingent obligations.

D. Tabular Disclosure of Contractual Obligations

The following table summarizes our minimum contractual obligations and commercial commitments as of December 31, 2018, and the effect we expect them to have on our liquidity and cash flow in future periods

Contractual Obligations	Payments due by Period (Amounts in Thousands US\$)				
	Total	Less than 1 year	1-3 Years	3-5 Years	More than 5 years
Operating lease obligations	8,312	1,551	2,818	2,424	1,519
Purchase commitments	9,482	8,532	665	285	-
Total	\$17,794	\$10,083	\$3,483	\$2,709	\$1,519

In addition, we have long-term liabilities for severance pay that are calculated pursuant to Israeli severance pay law generally based on the most recent salary of the employees multiplied by the number of years of employment, as of the balance sheet date. Employees are entitled to one month's salary for each year of employment or a portion thereof. As of December 31, 2018, our severance pay liability, net was \$ 395 thousand.

TAT expects to pay \$1,974 thousand in future benefits to their employees during 2019 through 2028 upon their normal retirement age. The amount was determined based on the employee's current salary rates and the number of service years that will be accumulated upon the retirement date. These amounts do not include amounts that might be paid to employees that will cease working for the Israeli company before their normal retirement age.

Year	Amount in thousands
2019	\$ 1,122
2020	51
2021	51
2022	9
2023	56
Thereafter (through 2028)	685
Total	\$ 1,974

TAT also has the following guarantees as of December 31, 2018:

In order to secure TAT's liability to the Israeli customs, TAT provided a bank guarantee in the amount of \$116 thousand. The guarantee is linked to the consumer price index and is valid until December 2029.

In order to secure TAT's liability to the lessor of its premises, TAT provided a bank guarantee in the amount of \$728 thousand. The guarantee is linked to the consumer price index in Israel and is valid until June 2019.

In order to secure TAT's liability for warranty to a customer, the Company provided a bank guarantee in the amount of \$39 thousand. The guarantee is valid until April 2021.

In order to secure Turbochrome's liability to the Ministry of Defense, the Company provided a bank guarantee in the amount of \$11 thousand.

Item 6. Directors, Senior Management and Employees

A. Directors and Senior Management

Set forth below are the name, age, principal position and a biographical description of each of our directors and executive officers, as of the date hereof:

Name	Age	Position
Amos Malka	66	Chairman of the Board of Directors
Igal Zamir	53	Chief Executive Officer and President
Ehud Ben - Yair	55	Chief Financial Officer
Liron Reshef	48	EVP Human Resources
Dan Doron (*)	50	EVP Engineering
Ohad Milo	44	President of Geder
Jeff Lambert (**)	40	President of Piedmont
Yair Raz	63	President of Limco
Michael Chen	54	President of Turbochrome
Ron Ben-Haim	49	Director
Amiram Boehm	47	Director
Avi Shani (1)(2)(3)(4)	71	External Director
Dafna Gruber (1)(3)(4)	54	Independent Director
Aviram Halevi (1)(2)(3)(4)	61	External Director

(1) “Independent Director” under the applicable SEC and NASDAQ Marketplace Rules

(2) “External Director” as required by the Israeli Companies Law

(3) Member of the audit committee

(4) Member of the compensation committee

(*) Mr. Doron notified the Company that he is resigning his position as EVP Technology and Engineering to pursue other opportunities. Mr. Doron was employed by the Company until February 2019. The Company has initiated a search process for a new EVP Technology and Engineering.

(**) Mr. Lambert notified the Company that he is resigning his position as President of Piedmont to pursue other opportunities. Mr. Lambert was employed by the Company until January 2019. The Company has initiated a search process for a new President of Piedmont.

Management

Mr. Igal Zamir was appointed TAT's Chief Executive Officer and President in April 2016. Prior to joining TAT, from 2009 until 2013, Mr. Zamir served as President at Mapco Express, a wholly-owned subsidiary of Delek US Holdings Inc., a NYSE-listed company which owns and operates 370 convenient stores and gas stations in the southeastern region of the United States. Prior to Mapco Express, from 2006 until 2009, Mr. Zamir served as CEO of Metrolight, a provider of proprietary energy saving solutions in High Intensity Discharge (HID) lighting systems. From 1998 until 2004, Mr. Zamir served as CEO of Rostam, a leading provider of private label feminine hygiene products. Mr. Zamir holds a B.Sc. in Industrial Engineering from Tel Aviv University and an MBA from Bar-Ilan University.

Mr. Ehud Ben-Yair was appointed as TAT's Chief Financial Officer in May 2018. Prior to joining TAT, Mr. Ben-Yair served as the Chief Financial Officer of SHL Telemedicine, a public company traded on the Swiss stock exchange (SIX- SHLTN) engaging in the field of digital health. Between 2012-2016, Mr. Ben Yair has served as the Chief Financial Officer of Opgal Optronics, a subsidiary of Elbit Systems (NASDAQ – ESLT), a company developing and manufacturing thermal imaging cameras for military and civilian aerospace markets. Prior to that, Mr. Ben- Yair has served for 8 years as the Chief Financial Officer of Orad Hi-Tech Systems, a public company traded on the AIM and German stock exchange (OHT), a company developing, manufacturing and selling proprietary hardware to TV stations and broadcasters. Mr. Ben Yair is a Certified Public Accountant and holds a B.A. in Economics and Accounting from the Ben-Gurion University in Israel.

Ms. Liron Reshef was appointed as TAT's EVP Human Resources in October 2018. Prior to joining TAT, from 2014 to 2018, Ms. Reshef served as VP Human Resources at Evogene, a bio-tech company, listed in Tel Aviv & Nasdaq). From 2012 until 2013 Ms. Reshef served as Global HR Director for Frutarom, a leading global Israeli based company specializes food industry. From 2007 until 2012 Ms. Reshef served as a VP Human Resources in Solbar Industries, a company in the food and pharmaceutical industry (listed in Tel Aviv). Prior to that Ms. Reshef served, for over 10 years, in executive Human Resources Positions at various hi-tech companies. Ms. Reshef holds a B.A. in Economics and Political Science from Bar-Ilan University and MBA -Specialization in managing behavioral sciences from Ben-Gurion University.

Mr. Dan Doron was appointed TAT's EVP Technology and Engineering in March 2018. Prior to joining TAT, from 2014 to 2018, Mr. Doron was with Israel Chemicals, a multi-national manufacturing concern that develops, produces and markets fertilizers, metals and other special-purpose chemical products, most recently as VP CAPEX. Prior to Israel Chemicals, between 1997 and 2014, Mr. Doron held various management and engineering positions at Intel Israel. Mr. Doron retired from the IDF in 1997 at the rank of Lieutenant-Colonel after 11 years of service in the Armored Corps. Mr. Doron served in various field command roles as well as commanded over a unit responsible for electro-optic and fire control weapons development within the Armored Corps. Mr. Doron holds a B.Sc. in Mechanical Engineering from Ben Gurion University and has completed graduate work in Mechanical Engineering at Tel Aviv University.

Mr. Ohad Milo was appointed President of TAT Gedera in October 2018. Before joining TAT, between 2012 and 2018, Mr. Milo served as CEO of 4 subsidiaries of IAI (Israeli Aerospace Industries) owned Elbitech group. Prior to Elbitech, from 2010 until 2012, Mr. Milo served as CEO of TMC Systems, a start-up company owned by Pointer Telocation Ltd. (Nasdaq CM: PNTR).

Between 2000 and 2010, Mr. Milo held various management positions at Sanmina Corporation (Nasdaq CM: SANM), most recently as VP Sales and Account Management at Sanmina's subsidiary in Israel.

Mr. Milo holds a B.Sc. in Industrial Engineering from Tel Aviv University and an MBA from the Technion - Israeli Institute of Technology.

Mr. Jeff Lambert was appointed President of Piedmont in January 2018. Before joining TAT, from 2016 to 2017, Mr. Lambert served as Vice President and General Manager at Rockwell Collins - Interiors Systems: Composite Operations in Mexico. Prior to that, between 2014 and 2016, Mr. Lambert served as Business Unit Director at B/E Aerospace - Interior Structures: Galleys in the Philippines. Prior to B/E Aerospace, between 2012 and 2014, Mr. Lambert served as General Manager of Customer Service MRO at United Technologies - UTC Aerospace Systems. From 2000 until 2012, Mr. Lambert held various management and engineering positions at Goodrich Corporation. Mr. Lambert holds a B.S. in Industrial Engineering from Colorado State University-Pueblo.

Mr. Michael Chen was appointed President of Turbochrome in January 2018. Before joining TAT Technologies, between 2013 and 2017, Mr. Chen served as CEO of Seraphim Optronics Ltd. Prior to Seraphim, from 1999 until 2013, Mr. Chen held various management positions at Electro Optics ELOP Industries, a subsidiary of ELBIT System. Between 2007 and 2009, Mr. Chen served as VP Operations at Atlantium Ltd. Between 1996 and 1999 Mr. Chen held engineering positions at ORLITE Industries Ltd. Mr. Chen holds a B.Sc. in Mechanical Engineering from Tel Aviv University and an MBA from Heriot-Watt University in Edinburgh.

Dr. Yair Raz was appointed President of Limco in November 2012, after serving as Chief Operating Officer of Piedmont for 7 months. Prior to that, from 1995 until 2012, Dr. Raz was with of Precision Components International ("PCI"), a Pratt & Whitney and Blades Technology International ("BTI") joint venture in the United States which specialized in the manufacturing of blades for jet engines, first as VP Operations and subsequently as its CEO. Between 1983 and 1995, Dr. Raz held various management positions at Blades Technology Limited, a BTI subsidiary in Israel, most recently as Plant Manager overseeing the operations of six different facilities. Dr. Raz holds a B.Sc. degree in Mechanical Engineering and M.Sc. degree in Material Science from the Technion – Israel Institute of Technology and an External PhD in Business Administration from La Salle University in Louisiana.

Directors

Mr. Amos Malka was elected as Chairman of our Board of Directors in June 2016. Mr. Malka is the founder and chairman of Nyotron Information Security Ltd., a privately-held cyber security provider and of Spire Security Solutions Ltd., a security, intelligence and cyber security provider. From 2007 until 2015, Mr. Malka served as the chairman and CEO of Logic Industries Ltd. From 2007 until 2010, he also served as chairman of Plasan Sasa LTD., an armored vehicle manufacturer. From 2005 until 2007, he served as the chairman of Albar, a leading company in the Israeli automobile sector. From 2002 until 2005, Mr. Malka served as the CEO of Elul Technologies Ltd., Israel's largest aerospace and defense business development and consulting company. Mr. Malka retired from the IDF in 2002 at the rank of Major General, after 31 years of service. He served as commander of the IDF Ground Forces Command, and later as Head of the Israeli Defense Intelligence, a post he held until his retirement in 2002. Mr. Malka holds B.A. in History from Tel Aviv University, Israel. He also graduated from the IDF Staff & Command College and its National Defense Academy.

Mr. Ron Ben-Haim joined TAT's Board of Directors in August 2013. Mr. Ben-Haim is a partner at FIMI Opportunity Fund since 2006. Mr. Ben Haim was previously with Compass Advisers, LLP, an investment banking firm with offices in New York and Tel Aviv and with the Merrill Lynch Mergers & Acquisitions group in New York. Prior to Merrill Lynch, Mr. Ben-Haim worked at Teva Pharmaceutical Industries in production management. Mr. Ben-Haim holds a B.Sc. in Industrial Engineering from Tel Aviv University and an MBA from New York University. In his capacity at FIMI, Mr. Ben-Haim currently serves on the board of directors of Tadir-Gan Precision Products, Ltd., Inrom Construction, Ltd., Nirlat Paints, Ltd., Alony, Ltd., Hadera Paper Ltd., Magal Security Systems, Ltd., Polyam Plastic Industries, Ltd., Rivulis Irrigation, Ltd., Oxygen and Argon Works, Ltd. and Overseas Commerce, Ltd.

Mr. Amiram Boehm joined TAT's Board of Directors in June 2016. Mr. Boehm is a partner at FIMI Opportunity Fund since 2006. Prior to joining FIMI, from 1999 until 2004, Mr. Boehm served as Head of Research at Discount Capital Markets, the investment arm of Israel Discount Bank. In his capacity at FIMI, Mr. Boehm currently also serves as the Managing Partner and Chief Executive Officer of FITE GP (2004) as well as a director of Ham-Let (Israel-Canada) Ltd., Hadera Paper Ltd., Rekah Pharmaceuticals Ltd., Pharm-up Ltd., Galam Ltd., Delekson Ltd. and DIMAR Ltd. Mr. Boehm previously served as a director of Magal S3 Security Systems Ltd., Scope Metal Trading, Ltd., Inter Industries, Ltd., Global Wire Ltd., Telkoor Telecom Ltd. and Solbar Industries Ltd. Mr. Boehm holds a B.A. in Economics and LL.B. from Tel Aviv University and a Joint MBA from Northwestern University and Tel Aviv University.

Mr. Avi Shani joined TAT's Board of Directors as an external director in 2008. In June 2017, Mr. Shani was re-elected to serve as an external director for another three-year term. From 2005 until 2008, Mr. Shani served as the CEO of TCM Mobile Ltd. Prior to that, from 2000 until 2004, he served as Executive Vice President Investments and Chief Economist of IDB Development, a leading Israeli holding company, responsible for the company's new investments. Since 2012 until 2018 Mr. Shani served on the board of directors of Harel Sal and Ecommunity. Mr. Shani holds a B.A. in Economics and an MBA, both from Tel Aviv University.

Ms. Dafna Gruber was elected as a director by TAT's Board of Directors in November 2013. Since February 2019 Ms. Gruber has been serving as chief financial officer of Aqua Security, a private company. from 2017 until 2018, Ms. Gruber served as chief financial officer of Landa Corporation Ltd., a private company. From 2015 until 2017, Ms. Gruber served as the chief financial officer of Clal Industries Ltd., a private holding company. From 2007 until 2015, Ms. Gruber served as the CFO of NICE Ltd., a public company traded on NASDAQ and the TASE. From 1996 until April 2007, Ms. Gruber was part of Alvarion Ltd., a company which traded on NASDAQ and the TASE, mostly as the company's CFO. Ms. Gruber serves as an external director at Nova Measuring Systems Ltd., a public company traded on NASDAQ and the TASE. Ms. Gruber is a Certified Public Accountant (Israel) and holds a Bachelor's degree in Accounting and Economics from Tel Aviv University, Israel.

Mr. Aviram Halevi joined TAT's Board of Directors as an external director in November 2013. In June 2016, Mr. Halevi was re-elected to serve as an external director for another three-year term. Mr. Halevi is the founder and CEO of Intel System Ltd., a provider of business intelligence services. Prior to that, from 2007 until 2010, Mr. Halevi served as the CEO of Terrogeance Ltd., a producer of intelligence data for commercial markets. Mr. Halevi holds a B.Sc. in Geology from Queens College, CUNY, and an MBA from Tel Aviv University.

Compensation

The following table sets forth all compensation TAT paid to all of its directors and executive officers as a group for the year ended December 31, 2018.

	Salaries, fees, Commissions and bonuses (Amounts in Thousands US\$)	Other benefits (Amounts in Thousands US\$)
All directors and executive officers as a group (14 executives)	\$ 2,469	\$ 114

During the year ended December 31, 2018, TAT paid its directors (except for its active chairman of the Board of Directors, Mr. Amos Malka), the fixed medium amounts permitted by law to an external director (within the meaning of the Israeli Companies Law) which was a per meeting attendance fee of NIS 2,650 (approximately \$707), plus an annual fee of NIS 71,110 (approximately \$18,973). Pursuant to its agreement with Mr. Amos Malka, TAT's active chairman of the Board of Directors, TAT paid Mr. Malka a monthly fee of NIS 50,000 plus VAT until September 2018, and starting October 2018 TAT pays Mr. Malka a monthly fee of NIS 40,000 plus VAT. Mr. Malka had been previously granted options to purchase 50,000 ordinary shares of TAT and is not currently entitled to receive any bonus.

The table below sets forth the compensation paid to our five most highly compensated senior office holders (as defined in the Israeli Companies Law) during or with respect to the year ended December 31, 2018, in the disclosure format of Regulation 21 of the Israeli Securities Regulations (Periodic and Immediate Reports), 1970. We refer to the five individuals for whom disclosure is provided herein as our "Covered Executives."

For purposes of the table and the summary below, and in accordance with the above-mentioned securities regulations, “compensation” includes base salary, bonuses, equity-based compensation, retirement or termination payments, benefits and perquisites such as car, phone and social benefits and any undertaking to provide such compensation.

Information Regarding Covered Executives ⁽¹⁾

(Amounts in Thousands US\$)

Name and Principal Position ⁽²⁾	Base Salary	Benefits and Perquisites ⁽³⁾	Variable Compensation ⁽⁴⁾	Equity-Based Compensation ⁽⁵⁾	Total
Igal Zamir, CEO and President	322	85	-	56	463
Jeff Lambert, President of Piedmont	225	30	90	20	365
Michael Chen, President of Turbochrome	171	78	-	32	281
Yair Raz, President of Limco	213	29	9	12	263
Ehud Ben- Yair, CFO (*)	138	43	-	48	230

(*) For the period of 6.5 months.

(1) All amounts reported in the table are in terms of cost to TAT, as recorded in our financial statements.

(2) Cash compensation amounts denominated in currencies other than the U.S. dollar were converted into U.S. dollars at the average conversion rate for the year ended December 31, 2018.

Amounts reported in this column include benefits and perquisites, including those mandated by applicable law.

(3) Such benefits and perquisites may include, to the extent applicable to each executive, payments, contributions and/or allocations for savings funds, pension, severance, vacation, car or car allowance, medical insurance and benefits, risk insurance (e.g., life, disability, accident), convalescence pay, payments for social security, tax gross-up payments and other benefits and perquisites consistent with our guidelines.

(4) Amounts reported in this column refer to variable compensation such as commission, incentive and bonus payments as recorded in our financial statements for the year ended December 31, 2018.

(5) Amounts reported in this column represent the expense recorded in our financial statements for the year ended December 31, 2018 in connection with equity-based compensation granted to the Covered Executive.

B. Board Practices

Introduction

According to the Israeli Companies Law and our articles of association, the management of our business is vested in our board of directors. The board of directors may exercise all powers and may take all actions that are not specifically granted to another organ in the Company (including our shareholders). Our executive officers are responsible for our day-to-day management. Our executive officers have individual responsibilities established by our chief executive officer and board of directors.

Election of Directors

Our articles of association provide for a board of directors consisting of such number of directors as may be determined from time to time at a general meeting of shareholders, provided that it shall be no less than two or more than eleven. Our board of directors is currently composed of six directors, including three independent directors, two of whom also qualify as external directors within the meaning of the Israeli Companies Law.

Pursuant to our articles of association and in accordance with the Israeli Companies Law, our directors (except for the external directors) are elected at our annual general meeting of shareholders by a vote of the holders of a majority of the voting power represented and voting at such meeting; in addition, directors (except for external directors) may be appointed by a vote of a majority of directors then in office. All our directors (except for external directors) hold office until the annual general meeting of shareholders succeeding their election (provided that if no directors are elected at the annual general meeting, the directors in office at the time such meeting was convened shall continue to hold their office) or until their earlier death, resignation, removal or other circumstances as set forth in the Israeli law. All the members of our board of directors (except for external directors) may be re-elected upon completion of their term of office.

The Israeli Companies Law requires the board of directors of a public company to determine a minimum number of directors with “accounting and financial expertise”. Our board of directors determined, accordingly, that at least two directors must have “accounting and financial expertise” as such term is defined by regulations promulgated under the Israeli Companies Law.

We are exempt from the requirements of the NASDAQ Marketplace Rules with regard to the nomination process of directors since we are a controlled company within the meaning of NASDAQ Marketplace Rule 5615(c)(2). See below in this Item 6. "Directors, Senior Management and Employees - Board Practices - NASDAQ Exemptions for a Controlled Company."

External and Independent Directors

External Directors. Under the Israeli Companies Law, Israeli companies whose shares have been offered to the public or whose shares are listed in an authorized stock exchange (accordingly, such shares are considered as held by "the public") are required to appoint at least two external directors who meet the independence criteria set by the Israeli Companies Law.

A person is qualified to serve as an external director only if he or she has "accounting and financial expertise" or "professional qualifications," as such terms are defined by the Israeli Companies Regulations (Conditions and Criteria for a Director Who Possesses Accounting Expertise and a Director Who Possesses Professional Competence), 2005. At least one of the external directors must have "accounting and financial expertise." Each of our external directors has "accounting and financial expertise."

External directors are elected by a majority vote at a shareholders' meeting. In addition to the majority vote, the shareholder approval of the election of an external director must satisfy either of two additional tests:

The majority includes at least a majority of the shares voted by shareholders other than controlling shareholders or shareholders who have a personal interest in the election of the external directors (excluding a personal interest that is not related to a relationship with the controlling shareholders); or

The total number of shares held by non-controlling shareholders and disinterested shareholders that voted against the election of the external director does not exceed 2% of the aggregate voting rights of the company.

In general, external directors serve for a three-year term and may be re-elected to two additional three-year terms by one of the following mechanisms: (1) the board of directors proposes the re-election of the nominee and the re-election is approved by the majority required for appointment of external directors for their initial term; or (2) a shareholder holding 1% or more of the company's voting rights proposes the re-election of the nominee, and the re-election is approved by a majority of the votes cast by the shareholders of the company, excluding the votes of controlling shareholders or those who have a personal interest in the nomination, provided that the aggregate votes cast in favor of the re-election by shareholders who are not controlling shareholders and do not have a personal interest in the nomination constitute more than 2% of the company's voting rights. Israeli companies listed on certain stock exchanges outside Israel, including The NASDAQ Global Market, such as our company, may appoint an external director for additional terms of not more than three years subject to certain conditions. Such conditions include the determination by the audit committee and board of directors, that in view of the director's professional expertise and special contribution to the company's board of directors and its committees, the appointment of the external director for an additional term is in the best interest of the company.

An external director may be removed from office at the initiative of the board of directors at a special general meeting of shareholders, if the board resolves that the statutory requirements for that person's appointment as external director no longer exist, or that the external director has violated his or her duty of loyalty to the company. The resolution of the special general meeting of shareholders regarding the termination of office of an external director requires the same majority that is required for the election of an external director. The court may order the termination of the office of an external director on the same grounds, following a motion filed by a director or a shareholder. If an external directorship becomes vacant and as a result there are fewer than two directors who serve as external directors in the company, the board of directors is required under the Israeli Companies law to convene a shareholders meeting immediately to appoint a new external director.

Each committee of the board of directors that is authorized to exercise powers vested in the board of directors must include at least one external director and the audit committee must include all of the external directors. An external director is entitled to compensation as provided in regulations adopted under the Israeli Companies Law and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with such service.

Until the lapse of two years from termination of office, we may not engage an external director or his spouse or child, to serve as an office holder and cannot employ or receive services from these persons, either directly or indirectly, including through a corporation controlled by that person; and with regards to a related person (to a such external director) as defined in the Israeli Companies law which is not a spouse or child – until the lapse of one year from termination of office.

Independent Directors. As a controlled company, within the meaning of NASDAQ Marketplace Rule 5615(c)(2), we are exempt from the NASDAQ Marketplace Rule which requires that a majority of our board of directors qualify as independent directors, within the meaning of the NASDAQ Marketplace Rules. See Item 6. “Directors, Senior Management and Employees - Board Practices - NASDAQ Exemptions for a Controlled Company”.

Audit Committee

Under the Israeli Companies Law, the board of directors of any public company must establish an audit committee. In general, the audit committee must consist of at least three directors and must include all of the external directors; furthermore, a majority of the audit committee members must comply with the director independence requirements prescribed by the Israeli Companies Law. The audit committee may not include (i) the chairman of the board of directors, (ii) any director employed by the Company or by a controlling shareholder of the company (including a company which is controlled by the controlling shareholder), (iii) any director providing services to the company or to a controlling shareholder of the company (including to a company which is controlled by the controlling shareholder) on an ongoing basis, or (iv) a controlling shareholder or any of the controlling shareholder’s relatives.

In addition, the NASDAQ Marketplace Rules require us to establish an audit committee comprised of at least three members, all of whom must be independent directors, each of whom is financially literate and satisfies the respective “independence” requirements of the SEC and NASDAQ and one of whom has accounting or related financial management expertise at senior levels within a company.

Our audit committee acts also as a committee for the review and the approval of our financial statements, and as such, assists our board of directors in overseeing the accounting and financial reporting processes of our company and audits of our financial statements, including the integrity of our financial statements, compliance with legal and regulatory requirements, our independent registered public accountants’ qualifications and independence, the performance of our internal audit function and independent registered public accountants, finding any defects in the business management of our company and proposing to our board of directors ways to correct such defects, approving related-party (officers, directors, controlling shareholder, etc.) transactions with the company as required by Israeli law, examining the scope of work and the payment to our independent auditors and such other duties as may be directed by our board of directors. The audit committee may consult from time to time with our independent auditors and internal auditor with respect to matters involving financial reporting and internal accounting controls.

Our audit committee consists of three members of our board of directors (including two external directors and one independent director) who satisfy the respective “independence” requirements of the SEC, NASDAQ and Israeli law for audit committee members. Our board of directors has determined that each member of our audit committee qualifies as an audit committee financial expert, as defined by rules of the SEC. The audit committee meets at least once each quarter.

Compensation Committee

Under the Israeli Companies Law, the board of directors of any public company must establish a compensation committee. The compensation committee must consist of at least three directors, include all of the external directors (including one external director serving as the chair of the compensation committee), and a majority of the committee members must comply with the director independence requirements prescribed by the Israeli Companies Law. Similar to the rules that apply to the audit committee, the compensation committee may not include the chairman of the board, or any director employed by us, by a controlling shareholder or by any entity controlled by a controlling shareholder, or any director providing services to us, to a controlling shareholder or to any entity controlled by a controlling shareholder on a regular basis, or any director whose primary income is dependent on a controlling shareholder, and may not include a controlling shareholder or any of its relatives. Individuals who are not permitted to be compensation committee members may not participate in the committee’s meetings other than to present a particular issue; provided, however, that an employee that is not a controlling shareholder or relative may participate in the committee’s discussions but not in any vote; other than the company’s legal counsel and corporate secretary who may participate in the committee’s discussions and votes if requested by the committee.

The compensation committee’s duties include recommending to the board of directors a compensation policy for executives and monitor its implementation, approve compensation terms of executive officers, directors and employees affiliated with controlling shareholders, make recommendations to the board of directors regarding the issuance of equity incentive awards under our equity incentive plan and exempt certain compensation arrangements from the requirement to obtain shareholder approval under the Israeli Companies Law. The compensation committee meets at least twice a year, with further meetings to occur, or actions to be taken by unanimous written consent, when deemed necessary or desirable by the committee or its chairperson.

Our compensation committee consists of our two external directors and an independent director under the respective requirements of the SEC and NASDAQ and complies with the Israeli Companies Law criteria for compensation committee members.

Internal Audit

The Israeli Companies Law requires the board of directors of a public company to appoint an internal auditor following a recommendation by the audit committee. The role of the internal auditor is to examine, among other things, the company's compliance with applicable law and orderly business practice. The internal auditor must meet certain statutory requirements of independence. Mr. Doron Cohen has served as our internal auditor since December 24, 2008.

Directors' Service Contracts

There are no arrangements or understandings between us and any of our subsidiaries, on the one hand, and any of our directors, on the other hand, providing for benefits upon termination of their employment or service as directors of our company or any of our subsidiaries.

Chairman of the Board

Under the Israeli Companies Law, the general manager of a company (or a relative of the general manager) may not serve as the chairman of the board of directors, and the chairman of the board of directors (or a relative of the chairman of the board of directors) may not serve as the general manager, unless approved by the shareholders by a special majority vote prescribed by the Israeli Companies Law. The shareholder vote cannot authorize the appointment for a period of longer than three years, which period may be extended from time to time by the shareholders with a similar special majority vote. The chairman of the board of directors shall not hold any other position with the company (except as general manager if approved in accordance with the above procedure) or in any entity controlled by the company, other than as chairman of the board of directors of a controlled entity, and the company shall not delegate to the chairman duties that, directly or indirectly, make him or her subordinate to the general manager.

Approval of Related Party Transactions under Israeli Law

Fiduciary Duties of Office Holders

The Israeli Companies Law codifies the fiduciary duties that “office holders,” including directors and executive officers, owe to a company. An office holder’s fiduciary duties consist of a duty of care and a duty of loyalty. The duty of care requires an office holder to act at a level of care that a reasonable office holder in the same position would employ under the same circumstances. This includes the duty to utilize reasonable means to obtain (i) information regarding the business feasibility of a given action brought for his approval or performed by him by virtue of his position and (ii) all other information of importance pertaining to the foregoing actions. The duty of loyalty requires that an office holder acts in good faith and for the benefit of the company, including (i) avoiding any conflict of interest between the office holder’s position in the company and any other position he holds or his personal affairs, (ii) avoiding any competition with the company’s business, (iii) avoiding exploiting any business opportunity of the company in order to receive personal gain for the office holder or others, and (iv) disclosing to the company any information or documents relating to the company’s affairs that the office holder has received by virtue of his position as an office holder.

Disclosure of Personal Interests of an Office Holder; Approval of Transactions with Office Holders

The Israeli Companies Law requires that an office holder promptly, and no later than the first board meeting at which such transaction is considered, disclose any personal interest that he or she may have and all related material information known to him or her and any documents in their position, in connection with any existing or proposed transaction by us. An office holder who did not disclose his or her personal interests will be deemed as breaching his or her fiduciary duties. In addition, if the transaction is an extraordinary transaction, that is, a transaction other than in the ordinary course of business or other than in accordance with market terms, or likely to have a material impact on the company’s profitability, assets or liabilities, the office holder must also disclose any personal interest held by the office holder’s spouse, sibling, parent, grandparent, child as well as sibling or parent of such person’s spouse or the spouse of any of the above, or by any corporation in which the office holder or his relative (as defined in the Israeli Companies Law) is a 5% or greater shareholder, director or general manager or in which he or she has the right to appoint at least one director or the general manager.

Under the Israeli Companies Law, in general, all arrangements as to compensation of office holders who are not directors (other than the Chief Executive Officer) require the approval of the compensation committee and the board of directors, including exculpation, insurance and indemnification of, or an undertaking to, indemnify an office holder who is not a director. The compensation of office holders who are directors and compensation of the Chief Executive Officer must be approved by the compensation committee, board of directors and the general meeting of shareholders.

Some transactions, actions and arrangements involving an office holder (or a third party in which an office holder has an interest) must be approved by the board of directors or as otherwise provided for in a company's articles of association. If the transaction is an extraordinary transaction (which is defined as a transaction not in the ordinary course of business and for a material value) such a transaction must be approved by the audit committee and by the board of directors itself, and under certain circumstances shareholder approval may be required. A director who has a personal interest in a transaction that is considered at a meeting of the board of directors or the audit committee may not be present during the board of directors or audit committee discussions and may not vote on the transaction, unless the transaction is not an extraordinary transaction or the majority of the members of the board or the audit committee have a personal interest, as the case may be. In the event the majority of the members of the board of directors or the audit committee have a personal interest, then the approval of the general meeting of shareholders is also required.

Disclosure of Personal Interests of a Controlling Shareholder; Approval of Transactions with Controlling Shareholders

The disclosure requirements that apply to an office holder also apply to a transaction in which a controlling shareholder of the company has a personal interest. The Israeli Companies Law provides that an extraordinary transaction with a controlling shareholder or an extraordinary transaction with another person in whom the controlling shareholder has a personal interest or a transaction with a controlling shareholder or his relative regarding terms of service and employment, must be approved by the audit committee (or the compensation committee, as the case may be), the board of directors and the shareholders by a special majority, as follows. The shareholders' approval must include the majority of shares voted at the meeting. In addition to the majority vote, the shareholder approval must satisfy either of two additional tests:

The majority includes at least a majority of the shares voted by shareholders who have no personal interest in the transaction; or

The total number of shares held by disinterested shareholders that voted against the approval of the transaction does not exceed 2% of the aggregate voting rights of our company.

According to regulations promulgated under the Israeli Companies Law, certain extraordinary transactions between a public company and its controlling shareholder(s) do not require shareholder approval. In addition, under such regulations, directors' compensation and employment arrangements in a public company do not require the approval of the shareholders if both the audit committee and the board of directors agree that such arrangements are solely for the benefit of the company or if the directors' compensation does not exceed the maximum amount of compensation for external directors determined by applicable regulations. Also, employment and compensation arrangements for an office holder that is a controlling shareholder of a public company do not require shareholder approval if certain criteria are met. The foregoing exemptions from shareholder approval will not apply if one or more shareholders holding at least 1% of the issued and outstanding share capital of the company or of the company's voting rights, objects to the use of these exemptions provided that such objection is submitted to the company in writing not later than fourteen days from the date of the filing of a report regarding the adoption of such resolution by the company. If such objection is duly and timely submitted, then the transaction or compensation arrangement of the directors will require shareholders' approval as detailed above.

In addition, a private placement of securities that will (i) cause a person to become a controlling shareholder or (ii) increase the relative holdings of a shareholder that holds 5% or more of the company's outstanding share capital, or (iii) will cause any person to become, as a result of the issuance, a holder of more than 5% of the company's outstanding share capital in a private placement in which 20% or more of the company's outstanding share capital prior to the placement are offered, the payment for which (in whole or in part) is not in cash or not under market terms, requires approval by the board of directors and the shareholders of the company.

Compensation of Executive Officers and Directors

In accordance with the Israeli Companies Law, we have adopted a compensation policy for our executive officers and directors. The purpose of the policy is to describe our overall compensation strategy for our executive officers and directors and to provide guidelines for setting their compensation, as prescribed by the Israeli Companies Law. In accordance with the Israeli Companies Law, the policy must be reviewed and readopted at least once every three years.

Approval of the compensation committee, the board of directors and our shareholders, in that order, is required for the adoption of the compensation policy. The shareholders' approval must include the majority of shares voted at the meeting. In addition to the majority vote, the shareholder approval must satisfy either of two additional tests:

The majority includes at least a majority of the shares voted by shareholders other than our controlling shareholders or shareholders who have a personal interest in the adoption of the compensation policies; or

The total number of shares held by non-controlling shareholders and disinterested shareholders that voted against the adoption of the compensation policies does not exceed 2% of the aggregate voting rights of our company.

Under the Israeli Companies Law, the compensation arrangements for officers (other than the Chief Executive Officer) who are not directors require the approval of the compensation committee and the board of directors; provided, however, that if the compensation arrangement is not in compliance with our executive compensation policy, the arrangement may only be approved by the compensation committee and the board of directors for special reasons to be noted, and the compensation arrangement shall also require a special shareholder approval. If the compensation arrangement is an immaterial amendment to an existing compensation arrangement of an officer who is not a director and is in compliance with our executive compensation policy, the approval of the compensation committee is sufficient.

Arrangements regarding the compensation of the Chief Executive Officer and directors require the approval of the compensation committee, the board of directors and our shareholders, in that order. In certain limited cases, the compensation of a new Chief Executive Officer who is not a director may be approved without approval of the shareholders.

Variable Cash Incentive

The compensation committee and board of directors may adopt, from time to time, a cash incentive plan, which will set forth for each executive certain targets which form such executives on target cash payment (the "On Target Cash Plan") and the rules or formula for calculation of the On Target Cash Plan payment once actual achievements are known.

The compensation committee and board of directors may include in the On Target Cash Plan predetermined thresholds and caps to correlate an executive's On Target Cash Plan payments with actual achievements.

The actual payment of the annual On Target Cash Plan for the active chairman of the board of directors (the "Active Chairman"), the CEO and other executives in a given year shall be capped as determined by our board of directors, but in no event shall exceed the ratio set forth in the table below.

The On Target Cash Plans may be composed based on a mix of (i) the company target; (ii) personal targets (KPIs); and (iii) personal evaluation. The weight to be assigned to each of the components per each of the executives shall be as set forth in the table below.

	Active Chairman	CEO	Other Executives
Company Target	100%	75% - 100%	50%-100%
Personal KPIs	NONE	NONE	0%-30%
Personal Evaluation	NONE	0%-25%	0%-20%

The company target shall be determined in accordance with all or part of pre-determined targets of the sales budget, gross profit, operating profit, EBITDA, net income and net cash from operating activities, all in accordance with TAT's annual budget. If a company target shall apply to a Chief Executive Officer or a President of a subsidiary, such target may be applied up to 100% with respect to the financial results of the relevant subsidiary, and the remaining cash incentive with respect to the financial results of TAT and its subsidiaries on a consolidated basis.

The board of directors may determine to exclude certain profits or loss items from the company target including, but not limited to, certain expenses related to acquisition of a new company, certain expenses related to distribution of dividend, certain items of revenue or any other items per the board of directors' sole discretion.

With regard to each one of the measurable targets, reference points shall be determined in terms of numerical values, so that compliance with the precise numerical target as determined in the On Target Cash Plan shall constitute compliance with 100% of the target, and also, numerical values shall be determined which will constitute the lower threshold for compliance with the target. The actual rate of compliance with the targets shall be calculated in accordance with the said reference points. Failure to comply with the minimum threshold of at least 75% of a specific target shall not entitle the executive to an On Target Cash Plan payment in respect of the said target. In the event of compliance at a rate of 75% or more with a specific target, the annual On Target Cash Plan shall be calculated in accordance with a key (i.e. linear, steps, etc.) which shall determine – in relation to the point of compliance with the target – the amount of the payment in terms of a percentage of the executive annual base salary, all as shall be set forth in the On Target Cash Plan. In this respect, the compensation committee and the board of directors shall have the right to determine a higher (but not lower) entitlement threshold.

The annual cash incentive shall be paid to the executive in the following manner:

- 80% of the amount of the On Target Cash Plan payment will be paid following the approval of the financial statements of the relevant year by the board of directors.
- 20% of the amount of the On Target Cash Plan payment shall be deferred by one year, and shall be paid following the approval of the financial statements of such year (“Deferred Bonus”) by the board of directors.

The executive's eligibility to the payment of the Deferred Bonus shall be subject to the following cumulative conditions: (i) TAT recorded a positive EBITDA for the following year; and (ii) TAT did not terminate its engagement with the executive for cause.

Indemnification and Insurance of Directors and Officers

Insurance of Office Holders

The Israeli Companies Law provides that a company may, if permitted by its articles of association, enter into a contract to insure an office holder for acts or omissions performed by the office holder in such capacity for:

- Breach of his or her duty of care to the company or to another person;
- Breach of his or her duty of loyalty to the company, provided that the office holder acted in good faith and had reasonable cause to assume that his act would not prejudice the company's interests;
- Monetary liability imposed upon the office holder in favor of another person;
- A monetary obligation imposed on the office holder in favor of another person who was injured by a violation, as this term is defined in section 52(54)(a)(1)(a) of the Israeli Securities Law, 1968 (“Israeli Securities Law”); and
- Expenses expended by the office holder, including reasonable litigation expenses, and including attorney's fees, in respect of any proceeding under chapters 8-C, 8-D or 9-A of the Israeli Securities Law or in respect to any monetary sanction.

Indemnification of Office Holders

The Israeli Companies Law provides that a company may, if permitted by its articles of association, indemnify an office holder for acts or omissions performed by the office holder in such capacity for:

- Monetary liability imposed on the office holder in favor of another person by any judgment, including a settlement or an arbitrator's award approved by a court;

- Reasonable litigation expenses, including attorney's fees, actually incurred by the office holder as a result of an investigation or proceeding instituted against him or her by a competent authority, provided that such investigation or proceeding concluded without the filing of an indictment against the office holder or the imposition of any monetary liability in lieu of criminal proceedings, or concluded without the filing of an indictment against the office holder and a monetary liability was imposed on the officer holder in lieu of criminal proceedings with respect to a criminal offense that does not require proof of criminal intent;

- A monetary obligation imposed on the office holder in favor of another person who was injured by a violation, as this term is defined in section 52(54)(a)(1)(a) of the Israeli Securities Law;

- Expenses expended by the office holder, including reasonable litigation expenses, and including attorney's fees, in respect of any proceeding under chapters 8-C, 8-D or 9-A of the Israeli Securities Law or in respect to any monetary sanction;

- Reasonable litigation expenses, including attorneys' fees, incurred by such office holder or which were imposed on him by a court, in proceedings the company instituted against the office holder or that were instituted on the company's behalf or by another person, or in a criminal charge from which the office holder was acquitted, or in a criminal proceeding in which the office holder was convicted of a crime which does not require proof of criminal intent; or

- Any other liability, payment or expense which the company may indemnify its office holders under the Israeli Company Law, the Israeli Securities Law or other Israeli law.

In accordance with the Israeli Companies Law, a company's articles of association may permit the company to:

- Undertake in advance to indemnify an office holder, except that with respect to a financial liability imposed on the office holder by any judgment, settlement or court-approved arbitration award, the undertaking must be limited to types of occurrences, which, in the opinion of the company's board of directors, are, at the time of the undertaking, foreseeable due to the company's activities and to an amount or standard that the board of directors has determined is reasonable under the circumstances; and
- Undertake in advance to indemnify an office holder for reasonable litigation expenses, including attorney's fees, actually incurred by the office holder as a result of an investigation or proceeding instituted against him or her by a competent authority, provided that such investigation or proceeding concluded without the filing of an indictment against the office holder or the imposition of any monetary liability in lieu of criminal proceedings, or concluded without the filing of an indictment against the office holder and a monetary liability was imposed on the officer holder in lieu of criminal proceedings with respect to a criminal offense that does not require proof of criminal intent.
- Undertake in advance to indemnify an office holder for reasonable litigation expenses, including attorneys' fees, incurred by such office holder or which were imposed on him by a court, in proceedings the company instituted against the office holder or that were instituted on the company's behalf or by another person, or in a criminal charge from which the office holder was acquitted, or in a criminal proceeding in which the office holder was convicted of a crime which does not require proof of criminal intent.
- Retroactively indemnify an office holder of the company.

Limitations on Exculpation, Insurance and Indemnification

The Israeli Companies Law provides that neither a provision of the articles of association permitting the company to enter into a contract to insure the liability of an office holder, nor a provision in the articles of association or a resolution of the board of directors permitting the indemnification of an office holder, nor a provision in the articles of association exempting an office holder from duty to the company shall be valid, where such insurance, indemnification or exemption relates to any of the following:

- Breach by the office holder of his duty of loyalty, except with respect to insurance coverage or indemnification if the office holder acted in good faith and had reasonable grounds to assume that the act would not prejudice the company;
- Breach by the office holder of his duty of care if such breach was committed intentionally or recklessly, unless the breach was committed only negligently;
- Any act or omission committed with intent to derive an unlawful personal gain; and
- Any fine or forfeiture imposed on the office holder.

Pursuant to our articles of association, the total amount of indemnification that we will pay (in addition to amounts received from an insurance company, if any) to all officers of the company, in aggregate, shall not exceed, in all circumstances, more than 25% of the company's shareholders equity as set forth in the company's recent consolidated financial statements prior to the date that the indemnity is paid. Our articles of association include provisions which allow us to insure, indemnify and exempt our office holders, subject to the provisions of the Israeli Companies Law.

We maintain a directors' and officers' liability insurance policy with a per claim and aggregate coverage limit of \$25 million, including legal costs incurred in Israel. In addition, our audit committee, board of directors and shareholders resolved to indemnify our office holders, pursuant to a standard indemnification agreement that provides for indemnification of an office holder in an aggregate amount not to exceed 25% of our equity capital (net worth). To date, we have provided letters of indemnification to all of our officers and directors.

NASDAQ Exemptions for a Controlled Company

We are a controlled company within the meaning of NASDAQ Marketplace Rule 5615(c)(2), or Rule 5615(c)(2), because the FIMI Opportunity V, L.P. and FIMI Israel Opportunity FIVE, Limited Partnership (the "FIMI Funds") beneficially own more than 50% of our voting shares.

Under Rule 5615(c)(2), a controlled company is exempt from the following requirements of NASDAQ Marketplace Rules 5605(b)(1), 5605(d) and 5605(e) that would otherwise require that:

The majority of the company's board of directors qualifies as independent directors, as defined under NASDAQ Marketplace Rules.

The compensation of the chief financial officer and all other executive officers be determined, or recommended to the board of directors for determination, either by (i) a majority of the independent directors or (ii) a compensation committee comprised solely of independent directors.

Director nominees must be selected or recommended for the board of directors, either by (a) a majority of independent directors or (b) a nominations committee comprised solely of independent directors.

We intend to continue to rely on these exemptions provided under Rule 5615(c)(2).

C. Employees

As of December 31, 2018, TAT and its subsidiaries employed 598 employees, of whom 500 were employed in manufacturing and quality control, 30 were employed in engineering and research and development and 68 were employed in administration, sales and marketing. Of such employees, 287 were located in Israel and 311 were employed by Limco and Piedmont and located in the United States.

Employees in Israel are employed under collective or individual employment agreements. Senior employees in special positions and members of management are employed under individual agreements. Collective bargaining agreements are signed for specified terms and are renewed from time to time. In July 26, 2017 we entered into a new collective bargaining agreement in Gedera with the Union which will be in effect until March 31, 2020. The collective bargaining agreements govern certain aspects of our employer-employee relations, such as termination procedures, annual salary increases, eligibility for certain compensation terms and employee welfare.

Certain provisions of the collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordinating Bureau of Economic Organizations (including the Manufacturers Association of Israel) are applicable to our Israeli employees by order of the Israeli Ministry of Economy and Industry. These provisions concern mainly the length of the workday, minimum daily wages for professional workers, pension contributions, insurance for work-related accidents, procedures for terminating employees, determination of severance pay and other employment terms. We generally provide our employees with benefits and working conditions exceeding the required minimums. Furthermore, under the collective bargaining agreements, the wages of most of our employees are linked to the CPI in Israel, although the extent of the linkage is limited.

In addition, Israeli law generally requires severance pay upon the retirement or death of an employee or termination of employment without due cause. Furthermore, Israeli employees and employers are required to pay predetermined sums to the National Insurance Institute which is similar to the United States Social Security Administration. These payments amount to approximately 12% of wages, with the employee contributing approximately 43% and the employer approximately 56%.

We currently also generally grant senior employees based in Israel participation in a particular insurance product called “management insurance”. Management insurance provides a combination of savings plan, insurance and severance pay benefits to the employee, giving the employee a lump sum payment upon retirement (rather than receiving annuity payments) and securing his or her right to receive severance pay, if legally entitled, upon termination of employment. In general, the employee contributes an amount equal to approximately 5% to 6% of his or her wage and the employer contributes an additional amount of approximately 13-1/3% to 16% of such wage. Management insurance is not a legally mandated by Israeli law.

Limco-Piedmont sponsors a 401(K) QACA safe harbor profit sharing plan covering substantially all of its employees in the United States. The plan requires the employer to contribute a match which is currently done on a payroll period basis, matching 100% of the first 2% and 50% of the next 3%. In addition, the plan allows for a discretionary qualified non-elective contribution for the plan year.

D. Share Ownership

Beneficial Ownership of Executive Officers and Directors

Except as set forth under 'Stock Option Plans' and in item 7A below, none of our directors and executive officers beneficially owns more than 1% of our outstanding shares.

Stock Option Plans

In November 2011, our audit committee and board of directors approved a stock option plan (the "Plan"), which was subsequently approved by TAT's shareholders, on June 28, 2012. According to the Plan an aggregate of 980,000 options exercisable into up to 980,000 ordinary shares, 0.9 NIS par value, of TAT may be granted to certain members of our board of directors and certain senior executives at an exercise price not less than the fair market value of the shares covered by the option on the date of grant. In general, the options vest over a period of 4 years as follows: 25% of the options vest upon the lapse of 12 months following the date of grant and the remaining 75% vest on a quarterly basis over the remaining 3-year period. In addition, certain options that were previously granted vest over a three-year period (one-third each year) and the vesting of 50% of such options is subject, in addition, to certain minimum shareholders' equity during a period of 4 years from the date of grant. Pursuant to the Plan, any options that are cancelled or not exercised within the option period determined in the relevant option agreement will become available for future grants. Our board of directors has elected to allot options to Israeli employees under Israel's capital gain tax treatment.

On August 30, 2018 the Company's compensation committee, followed by the Board of Directors, approved the amended and restated company's 2012 Plan. On October 4, 2018 the company's amended and restated 2012 stock plan was approved at the annual general meeting of shareholders. As part of the company's 2012 Plan's amendments it was determined that if the Company declares a cash dividend to its shareholders, and the distribution date of such dividend will precede the exercise date of an Option, including for the avoidance of doubt, Options that have yet to become vested and Options which have been granted prior to the adoption of such amendment to the Plan, the exercise price of the option shall be reduced in the amount equal to the cash dividend per share distributed by the Company.

As of December 31, 2018, options to purchase 494,309 ordinary shares were outstanding under the Plan, exercisable at an average exercise price of \$10 per share. During 2018 total of 26,668 options were exercised.

Item 7. Major Shareholders and Related Party Transactions

A. Major Shareholders

The following table sets forth certain information as of December 31, 2018, regarding the beneficial ownership by all shareholders known to us to own beneficially 5% or more of our ordinary shares:

Name	Number of Ordinary Shares Beneficially Owned(1)	Percentage of Ownership(2)	
FIMI Funds (3)	5,254,908	59.21	%
Yelin Lapidot Holdings Management Ltd. (4)	583,721	6.58	%
Excellence and The Phoenix Holdings Ltd (5)	552,637	6.23	%

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Ordinary shares relating to options and warrants currently exercisable or exercisable within 60 days of the date of this table are deemed outstanding for computing the percentage of the (1) person holding such securities but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table above have sole voting and investment power with respect to all shares shown as beneficially owned by them.

(2) The percentages shown are based on 8,874,696 ordinary shares issued and outstanding as of December 31, 2018 (net of 274,473 dormant shares).

Based on a Schedule 13D filed on August 14, 2013, and on Schedule 13D/A filed on December 12, 2016, FIMI Funds, FIMI FIVE 2012 Ltd., Shira and Ishay Davidi Management Ltd. and Mr. Ishay Davidi share voting and dispositive power with respect to the 5,254,908 ordinary shares held by the FIMI Funds. FIMI FIVE 2012 Ltd. is (3) the managing general partner of the FIMI Funds. Shira and Ishay Davidi Management Ltd. controls FIMI FIVE 2012 Ltd. Mr. Ishay Davidi controls the Shira and Ishay Davidi Management Ltd. and is the Chief Executive Officer of all the entities listed above. The principal business address of each of the above entities and of Mr. Davidi is c/o FIMI FIVE 2012 Ltd., Electra Tower, 98 Yigal Alon St., Tel Aviv 6789141, Israel.

This information is based on information provided in the Schedule 13G/A filed with the SEC by Dov Yelin, Yair Lapidot and Yelin Lapidot Holdings Management Ltd. (collectively, "Yelin Lapidot") on February 11, 2019. The (4) business address of Yelin Lapidot is 50 Dizengoff Street, Dizengoff Center, Gate 3, Top Tower, 13th floor, Tel Aviv 64332, Israel.

(5) This information is based on information provided in the Schedule 13G/A filed with the SEC by Itshak Sharon (Tshuva), Delek Group Ltd. And The Phoenix Holdings Ltd. on February 14, 2019. The business address of Itshak Sharon (Tshuva) and Delek Group Ltd. is 19 Abba Eban blvd, P.O.B. 2054, Herzliya, 4612001, Israel and the address of the Phoenix Holdings Ltd. is Derech Hashalom 53, Givataim, 53454, Israel.

Significant Changes in the Ownership of Major Shareholders

On October 2012 two lenders to TAT's then controlling shareholders, KMN Industries and TAT Industries, filed separate petitions to the court to enforce liens granted to such lenders by each of the controlling shareholders in certain collateral including KMN Industries' holdings of an approximately 80% ownership interest in TAT Industries (which in turn owned approximately 43% of TAT's outstanding share capital) and KMN Industries' direct holdings in TAT (which represented approximately 10% of TAT's outstanding share capital).

On December 18, 2012, the court-appointed permanent receivers on behalf of the two lenders mentioned above for the purpose of jointly enforcing the liens granted to such lenders. On March 15, 2013, the receivers of TAT's shares announced a tender process for the sale of such shares.

On August 7, 2013, the court-appointed permanent receivers informed TAT that the FIMI Funds acquired 4,732,351 ordinary shares of TAT constituting 53.8% of TAT's outstanding share capital as of the transaction date, after receiving all required court approvals and the transfer of the consideration by the FIMI Funds to the receivers.

On December 12, 2016, FIMI Funds acquired an additional 522,557 ordinary shares of TAT constituting 5.7% of TAT's outstanding share capital as of the transaction date.

Major Shareholders Voting Rights

Our major shareholders do not have different voting rights.

Record Holders

Based on a review of the information provided to us by our transfer agent, as of December 31, 2018, there were 34 holders of record of our ordinary shares, of which 30 record holders holding less than 1.0% of our ordinary shares had registered addresses in the United States. These numbers are not representative of the number of beneficial holders of our shares nor is it representative of where such beneficial holders reside since many of these ordinary shares were held by brokers or other nominees including CEDE & Co., the nominee for the Depositary Trust Company (the central depository for the U.S. brokerage community), which held approximately 69% of our outstanding ordinary shares as of such date.

B. Related Party Transactions

Not applicable.

C. Interests of Experts and Counsel

Not applicable.

Item 8. Financial Information

A. Consolidated Statements and Other Financial Information

See the consolidated financial statements, including the notes thereto, included in Item 18.

Legal Proceedings

We are party to ongoing litigation in the ordinary course of business and other legal proceedings. For a discussion of these matters, see Note 11 to our consolidated financial statements included elsewhere in this annual report.

Dividend Distribution Policy

The Israeli Companies Law mandates that we can only distribute dividends from profits (as defined in the law), provided that there is no reasonable suspicion that the dividend distribution will prevent us from meeting our existing and future expected obligations as they come due.

B. Significant Changes

Not applicable.

Item 9. The Offer and Listing

A. Offer and Listing Details

Not applicable.

B. Plan of Distribution

Not applicable.

C. Markets

Our ordinary shares are traded on NASDAQ under the symbol "TATT". On August 16, 2005, we listed our shares for trade on the TASE as a dual listed company.

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expense of the Issue

Not applicable.

115

Item 10. Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

Set out below is a description of certain provisions of our memorandum of association, articles of association and of the Israeli Companies Law related to such provisions. This description is only a summary and does not purport to be complete and is qualified by reference to the full text of the memorandum of association and articles of association, which are incorporated by reference as exhibits to this annual report, and to Israeli law.

Purposes and Objects of the Company

We are a public company registered with the Israeli Companies Registry and have been assigned company number 52-0035791. Section 2 of our memorandum of association provides that we were established for the purpose of engaging in the business of providing services of planning, development, consultation and instruction in the electronics field. In addition, the purpose of our company is to perform various corporate activities permissible under Israeli law.

On February 1, 2000, the Israeli Companies Law came into effect and superseded most of the provisions of the Israeli Companies Ordinance (New Version), 5743-1983, except for certain provisions which relate to liens, bankruptcy, dissolution and liquidation of companies. Under the Israeli Companies Law, various provisions, some of which are detailed below, overrule the current provisions of our articles of association.

The Powers of the Directors

Under the provisions of the Israeli Companies Law which prevails over our articles of association in certain issues, a director cannot participate in a meeting nor vote on a proposal, arrangement or contract in which he or she is materially interested except in cases where a majority of the directors are materially interested in the same transaction. In addition, our directors cannot vote on compensation to themselves without the approval of our compensation committee and our shareholders at a general meeting, except for certain cases in which there is no need for the approval of the general meeting in accordance with the regulations promulgated under the Israeli Companies Law. See Item 6. "Directors, Senior Management and Employees – Board Practices – Approval of Related Party Transactions Under Israeli Law."

The authority of our directors to enter into borrowing arrangements on our behalf is not limited, except in the same manner as any other transaction by us.

Our articles of association do not impose any mandatory retirement or age-limit requirements on our directors and our directors are not required to own shares in our company in order to qualify to serve as directors.

Rights Attached to Shares

Our authorized share capital consists of 13,000,000 ordinary shares of a nominal value of NIS 0.90 each. All outstanding ordinary shares are validly issued, fully paid and non-assessable.

The rights attached to the ordinary shares are as follows:

Dividend rights. Holders of our ordinary shares are entitled to the full amount of any cash or share dividend subsequently declared. The board of directors may declare dividends in accordance with the provisions of the Israeli Companies Law as mentioned above. See Item 8.A. “Financial Information – Consolidated and Other Financial Information – Dividend Distribution Policy”. If after one year a dividend has been declared and it is still unclaimed, the board of directors is entitled to invest or utilize the unclaimed amount of dividend in any manner to our benefit until it is claimed. We are not obligated to pay interest or linkage differentials on an unclaimed dividend.

Voting rights. Holders of ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of shareholders. Such voting rights may be affected by the grant of any special voting rights to the holders of a class of shares with preferential rights that may be authorized in the future.

The quorum required for any meeting of shareholders consists of at least two shareholders present in person or represented by proxy who hold or represent, in