TAT TECHNOLOGIES LTD
Form 20-F
April 06, 2017

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, 2016

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

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…… 8,828,444
(as of December 31, 2016)

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 International Accounting Standards Board Other

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

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INTRODUCTION

TAT Technologies Ltd. is a leading provider of solutions and services to the aerospace and defense industries, focused mainly on the following four segments: (i) original equipment manufacturing ("OEM") of heat transfer solutions and aviation accessories 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.
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, 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 by the American, European, British and Chinese civil aviation authorities, as well as leading manufactures such as Boeing and Honeywell International.

TAT employs over 600 people and operates in four locations: our 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 our Gedera facility, we are 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.

Through our Limco subsidiary, we provide 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 hear transfer solutions.

Through our Piedmont subsidiary, we provide MRO services for aviation components in the area of landing gears and APUs. 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 our Turbochrome subsidiary, we provide 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, we 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 accounting treatment of the joint venture is based on the equity method due to variable participant rights granted to Engineering. The new entity was established in January 2016 and is currently in the process of ramping up its operations.

Our 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.

Our 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, 2016 and 2015 and for each of its fiscal years ended December 31, 2016, 2015 and 2014, 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, 2014, 2013 and 2012 and for the years ended December 31, 2013 and December 31, 2012 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.

Income Statement Data:

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except share and per share data)				
Revenues:					
Products	$30,431	$31,339	$31,363	$34,364	$36,263
Services	65,363	54,268	49,363	45,187	41,652
Total revenues	95,794	85,607	80,726	79,551	77,915
Cost of revenues:					
Products	23,788	24,466	23,616	25,143	25,494
Services	52,969	47,476	40,906	36,600	33,977
Total cost of revenues	76,757	71,942	64,522	61,743	59,471
Gross profit	19,037	13,665	16,204	17,808	18,444
Operating expenses:					
Research and development, net	1,140	890	1,070	713	995
Selling and marketing	3,876	2,903	3,203	3,150	2,899
General and administrative	10,023	8,469	8,123	8,668	9,178
Other expenses (income)	(138)	631	(11)	(20)	(13)
Gain on bargain purchase	-	(4,833)	-	-	-
	14,901	8,060	12,385	12,511	13,059
Operating income from continuing operations	4,136	5,605	3,819	5,297	5,385
Financial expenses, net	(154)	(349)	(1,294)	(50)	(106)
Income from continuing operations before taxes on income	3,982	5,256	2,525	5,247	5,279
Taxes on income	3,865	644	1,360	1,041	2,090
Income from continuing operations after taxes on income	117	4,612	1,165	4,206	3,189
Share in results of equity investment of affiliated companies	(55)	1,237	267	1,025	(3,756)
Net income (loss) from continuing operations	62	5,849	1,432	5,231	(567)
Net loss from discontinued operations, net of tax	-	-	-	(2,429)	(1,147)
Net income (loss) attributable to TAT Technologies' shareholders	$62	$5,849	$1,432	$2,802	$(1,714)
Basic and diluted net income (loss) per share:					
Net income (loss) from continuing operations per share attributable to controlling interest	0.01	0.66	0.16	0.60	(0.06)
Discontinued operations attributable to controlling interest	-	-	-	(0.28)	(0.13)
	$0.01	$0.66	$0.16	$0.32	$(0.19)
Weighted average number of shares used in computing:					
Basic net income (loss) per share	8,828,444	8,808,344	8,805,495	8,799,237	8,808,075
Diluted net income (loss) per share	8,830,764	8,810,689	8,826,542	8,808,920	8,808,075
Cash dividend per share	$0.34	$-	$0.23	$-	$0.28

Balance Sheet Data:

	As of December 31,

	2016	2015	2014	2013	2012
	(in thousands)				
Working capital	$66,683	$70,813	$70,775	$73,905	$71,521
Total assets	111,977	109,583	99,176	108,951	109,033
Long-term liabilities, excluding current maturities	5,083	3,322	2,689	4,256	6,421
Shareholders' equity	$88,652	$91,424	$85,541	$85,640	$82,324

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 additional costs to 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 similar agencies in other countries and by individual 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, Safran (Secan), Behr 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, the in-house maintenance services of a number of commercial airlines and other independent service providers, including Triumph Thermal Systems, Lori Heat Transfer Center of Honeywell, Safran (Secan), Drake Air – Ametek, American Cooler Service, Hamilton Malaysia, Lufthansa Technik and Elite Aerospace.

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 a number of commercial airlines and other independent service providers, including Standard Aero Group Inc., Aerotech International Inc., Honeywell International, AAR Corp., Messier- Bugatti-Dowty, 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 a number of commercial airlines and other independent service providers, including Safran, General Electric, GKN, PAS, MCT Japan and others. With respect to coating materials, TAT's major competitors are APV Coatings, Praxair, Saint-Gobain and others.

Competition in the MRO market is based on price, quality, engineered 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 more quickly 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 independently offer 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 20.2%, 20.11% and 18.6% of TAT's revenues for the years ended December 31, 2016, 2015 and 2014, 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 6.9%, 5.5% and 6.8% of TAT's revenues on a consolidated basis for the years ended December 31, 2016, 2015 and 2014, 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.

A decision by a governmental authority to take any or all of the actions listed above could materially reduce the sales and profitability of TAT and its subsidiaries. Most of our contracts with the U.S. government can be terminated by the U.S. government either for its convenience or if TAT or any of its subsidiaries defaults by failing to perform under the contract. Termination for convenience provisions generally provide only for the recovery of costs incurred or committed, settlement expenses and profit on the work completed by TAT and its subsidiaries prior to termination.

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 and adversely affect our business, results of operations and financial condition.

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. 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 models. 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, 2016, 2015 and 2014, approximately 92%, 94% and 93% 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. In addition, TAT paid an 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 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. The new company, TAT-Engineering LLC, 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, 3D printing – a technology based on the principle of joining thin layers of materials, both solid and liquid, in horizontal cross-section, to build up a real, three-dimensional object from a digital model – may enable the manufacturing of high-quality heat exchangers in serial production and at a lower price. 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 may not be able to successfully enhance its existing products or develop new products to properly address the technological changes, evolving industry standards or customer requirements. TAT may experience difficulties that could delay or prevent the successful development, introduction and sale of such enhancements or new products, and such enhancements or new products may not meet the requirements of the market or achieve any significant degree of market acceptance. The inability to enhance its existing products or develop new products or if release dates of any of our enhancements or new products are delayed, or if when released, they fail to achieve market acceptance, TAT's business, operating results and financial condition would be materially adversely affected.

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 terminate 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 termination of employment would 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, 2016.

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.

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 amount 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 the amount of TAT's expenses in NIS are higher than the amount of TAT's revenues in NIS and/or the amount of 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; and
- Legal proceedings against TAT's controlling shareholders.

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 59.5% 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 businesses 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 United States 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 maintenance, repair and overhaul 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 shares of 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. TAT owns approximately 5% of FAvS' share capital following the transaction.

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. TAT-Engineering LLC shall provide services of minor repair, overhaul and recore for heat transfer components in Russia and in former territories of the Soviet Union. 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. TAT operates under four segments: (i) original equipment manufacturing ("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 primarily include the design, development and manufacture of (i) 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 in 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 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 United States Air Force, United States Army, and United States 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 United States Air Force and United States Navy and other air forces from around the world.

Gedera also provides limited MRO services to commercial and 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 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 United States Air Force, United States Army and United States 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/sub systems 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 manufacturing 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 most recently by the Civil Aviation Administration of China ("CAAC"). Limco has also recently attained NADCAP certification for dye penetrant testing. 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 three 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 United States Armed Forces (Army, Air Force, Navy and Coast Guard). Such customers typically enter into MRO contracts with Limco which are generally long term engagements that 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 UTC Aerospace Systems (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 United States Army, United States Air Force, United States Navy, Raytheon Company ("Raytheon"), Bell Helicopter, Vought Aircraft Industries, Cobham plc, Lockheed Martin, 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, air cargo carriers, maintenance service providers and to governments and military forces worldwide. Piedmont specializes in MRO services for aircraft components, including APUs and landing gears. 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. Such customers typically enter into MRO contracts with Piedmont which 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.

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.

Business Strategy

TAT's principal strategy is as follows:

- 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 in the existing aircrafts to new platforms.
- 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, also we 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).

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 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 who have made the decision to outsource their MRO requirements are searching for MRO service providers with 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 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, pre-coolers, re-heaters, condensers, water separators, fuel heaters and evaporators.

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, Gulfstream, British 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 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 varying 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 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 providers in the MRO services market 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 UTC Aerospace Systems (Hamilton Sundstrand), one of the largest heat transfer solutions manufacturers in North America.

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 manufacturing 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 certified 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 who have made 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 and also certified to AS9001 standards. Piedmont specializes in providing comprehensive repair and overhaul services for APU models manufactured by both Honeywell and Hamilton Sundstrand. 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), 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 providers in the MRO services market 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 and FAA FAR 145 for the civil parts.

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 2016, TAT had revenues generated by more than 500 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 United States 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, Bombardier, IAI, Parker.
System manufacturers/integrators and defense contractors	Liebherr-Aerospace, Wuhan Hangda, Thales, Rafael, Elbit, IAI, Lockheed Martin, Eaton Aerospace, Parker Hannifin Corporation, Safran (Snecma), Raytheon.

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 United States 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, SAS, Swiss, EL AL, Delta Airlines, United, Air Canada Jazz, Republic Airways, Expressjet, DHL, Austrian Airlines, TAM, Saudi Arabian Airlines Corp, Thai, Korean Air, Air India, FedEx, Swiftair, Allegiant Air, Empire Airlines, Mountain Air Cargo, Alliance Airlines.
Maintenance service centers	Fokker, Honeywell International, Kellstrom Commercial, Aerokool, Lufthansa Technik, UTAS-Hamilton Sundstrand, SR Technics, Evergreen Aviation Component Services, Turkish Technic, Delta Tech Ops, ST Aerospace Engineering, Aero Kool, Gulfstream, IAI, Aerothrust, Summit Aviation, Haeco Americas, Jet Engine Technologies, Turbine Engine Solution, Turbine Engine Center and Cargolux.
Government and military air forces	United States Army, United States Air Force and United States 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 5.6% of TAT's revenues for the year ended December 31, 2016, approximately 4.9% of our revenues for the year ended December 31, 2015 and approximately 6.4% of our revenues for the year ended December 31, 2014.

Many of TAT's contracts are bid and awarded competitively on the basis of 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 2016 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, 2016, our backlog included: (i) outstanding purchase orders representing an aggregate amount of $33 million, and (ii) sales that we expect to generate from long-term agreements (the longest of which is until 2030) for which we have not yet received actual purchase orders in an aggregate amount of $170 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, 2016, 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 advanced and attractive products. Competition in these OEM markets is also based on price, quality and turn-around time. 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 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-Treitler 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 (Secan), Behr and Liebherr-Aerospace Toulouse S.A; 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 more quickly 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 independently offer 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.

For heat transfer MRO services, TAT's major competitors are Triumph Thermal Systems, Lori Heat Transfer Center of Honeywell, Safran (Secan), Drake Air – Ametek, American Cooler Service, Hamilton Malaysia, Lufthansa Technik, 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:

- Better name recognition;
- Ability to bundle heat transfer and other aircraft components;
- Regional support near customers' location;
- Access to greater marketing resources; and
- Access to superior technology.
- 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 a number of commercial airlines and other independent service providers. For APU and landing gear MRO services Piedmont's major competitors are Standard Aero Group., Aerotech International, Honeywell International, Chase Aerospace, Professional, 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; and
- Greater access to capital.
- 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 a number of commercial airlines and other independent service providers, including Safran (Snecma), General Electric, GKN, PAS, Chromalloy Southwest, MCT Japan and others. With respect to coating materials, Turbochrome's competitors include APV Coatings, Praxair, Saint-Gobain and others.

A number of Turbochrome's competitors have inherent competitive advantages. For example, Turbochrome competes with the service divisions of large OEMs who 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. 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 more quickly 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; and
- Greater access to capital.
- 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 Piedmont 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 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 obtaining supplemental type certificates from the FAA. Limco's engineering department supports the development of new capabilities with repairs 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 increase 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 from a limited number of suppliers and subcontractors, most of whom are 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 been and are investing efforts in order to qualify second sources or have identified alternate sources for many of its 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. Gedera 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 in the commercial market but that may also be used in the defense market).

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 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 U.S., 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.

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. We believe that our success depends on the ownership of such proprietary rights along with 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. Each of its repair stations is approved by the FAA. 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 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 2017 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 2016, 2015 and 2014 were $695, $667 and $427 thousand, respectively.

Limco owns and operates a 55,000 square feet manufacturing plant in Tulsa Oklahoma Limco also leases an additional 16,000 square feet repair station adjacent to its manufacturing plant. In 2016, 2015 and 2014, the rental expense for this property was $51, $51 and $52 thousand, respectively, for each one of these years. The lease expired in October 31, 2016 and Limco is currently working on a month to month lease arrangement.

Piedmont leases approximately 56,000 square feet space for its facility in Kernersville, North Carolina to support its APU component and overhaul repair station. In 2016, 2015 and 2014, the rental expense for this property was $78 thousand for each one of these years. The lease expired in October 31, 2016, and is now extended month to month. In the second half of 2015, Piedmont leased approximately 82,000 square feet in Greensboro for its new landing gear component and overhaul repair station as well as the MPG operation. The lease expires on June 30, 2025. In 2016 and 2015 the rental expense was $297 and $162 thousand. In addition, 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, 2015 and 2014, the rental expense for this property was $38, $76 and $76 thousand for each one of these years. 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, 2015 and 2014 Piedmont's expense for this property was $8, $19 and $14 thousand, respectively, for each one of these years.

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 revenues from OEM operations generally have higher gross margins than from MRO services. Correspondingly, the manufacturing of OEM products requires a higher level of expertise, associated labor and initial investments than does the provision of MRO services.

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).

TAT's revenues from its four operational segments for the three years ended December 31, 2016 were as follows:

	Year Ended December 31,								
	2016			2015			2014		
	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	$28,255	29.5	%	$27,351	32	%	$28,185	35	%
MRO services for heat transfer components and OEM of heat transfer solutions	32,429	33.9	%	31,001	36	%	30,350	38	%
MRO services for aviation components	31,630	33.0	%	29,665	35	%	27,734	34	%
Overhaul and coating of jet engine components (*)	9,209	9.6	%	1,905	2	%	-	-	%
Eliminations	(5,729)	(6	)%	(4,315)	(5	)%	(5,543)	(7	)%
Total Revenues	$95,794	100	%	$85,607	100.0	%	$80,726	100.0	%

(*) The results of 2015 are for the period from October 19, 2015 (date of acquisition) to December 31, 2015.

The following table reflects the geographic breakdown of TAT's revenues for each of the three years ended December 31, 2016:

	Years Ended December 31,								
	2016			2015			2014		
	Revenues in Thousands	% of Total Revenues		Revenues in Thousands	% of Total Revenues		Revenues in Thousands	% of Total Revenues	
United States	57,946	60.5	%	$52,751	62	%	$50,153	62	%
Europe	19,641	20.5	%	18,336	21	%	16,419	20	%
Israel	7,670	8.0	%	4,916	6	%	5,641	7	%
Other	10,537	11.0	%	9,604	11	%	8,513	11	%
Total	$95,794	100.0	%	$85,607	100.0	%	$80,726	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, which in 2016 and 2015 are mainly attributed to the Turbochrome acquisition and related 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
- Acquisitions and other intangible assets

Revenue Recognition

TAT 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.
Revenues from the sale of products are recognized when persuasive evidence of an arrangement exists, delivery of the product has occurred, collection of the resulting receivable is reasonably assured, the price is fixed or determinable and no significant obligation exists. TAT does not grant a right of return.

Revenues from product sales are recognized when product is shipped to the customer and title passes to the customer.

Revenues from multi-year, fixed price contracts for OEM customers are recognized when a product is shipped (and title passes) to the customer. Management provides for losses, if expected for the remaining portion of such contracts.

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

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. We estimate the costs that are expected to be incurred based on our historical experience. The costs incurred in connection with 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, we accrue revenue as costs are incurred. These contracts are reviewed on a regular basis and adjusted (if required) based on total expected cost.

Inventory valuation

Inventories are stated at the lower of cost or market. 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.

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. On February 25, 2016, Republic Airways Holdings Inc. ("Republic"), a customer of Piedmont, announced that it and certain of its subsidiaries have filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code. Outstanding receivables from Republic for the period prior to its Chapter 11 filing total $235 thousand. Piedmont has continued to provide services to Republic after its Chapter 11 filing.

Acquisitions and Other Intangible Assets

We accounted for the Turbochrome acquisition using the acquisition method of accounting in accordance with U.S. GAAP accounting rules for business combinations, which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. Any excess of the purchase price over the estimated fair values of net assets acquired, including identified intangible assets, is recorded as goodwill. If the estimated fair value of the net assets acquired exceeds the purchase price, the resulting bargain purchase is recognized as a gain in the consolidated statement of operations.

The valuations and useful life assumptions are based on information available on or about the acquisition date and are based on expectations and assumptions that are considered reasonable by management.

Management determined the estimated fair values of the intangible assets with the assistance of third-party experts. The judgments made in determining estimated fair values assigned to assets acquired and liabilities assumed, as well as asset lives, can materially impact our results of operations.

The bargain purchase gain from the acquisition of Turbochrome was primarily based on the fair market value of certain property, plant and equipment, certain replacement costs, and management’s expectation regarding its ability to increase the services that can be provided to Turbochrome's existing customers and to its own customers.

The acquisition of Turbochrome was funded through cash on hand and an earn-out payment (up to $2 million). The earn-out payment was based on the actual revenues of Turbochrome during the calendar years 2015 and 2016. To date TAT has paid $0.5 million for the earn-out payment. The contingent consideration liability was computed on expected revenue to be generated by Turbochrome using a binomial tree model income approach. We will reassess the fair value of the contingent consideration on a quarterly basis and record any applicable adjustments to earnings in the period they are determined.

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		
	2016	2015	2014
	(in thousands)		
Revenues			
OEM of heat transfer solutions and aviation components	$28,255	$27,351	$28,185
MRO services for heat transfer components and OEM of heat transfer solutions	32,429	31,001	30,350
MRO services for aviation components	31,630	29,665	27,734
Overhaul and coating of jet engine components	9,209	1,905	-
Eliminations	(5,729)	(4,315)	(5,543)
Total revenues	95,794	85,607	80,726
Cost of revenues			
OEM of heat transfer solutions and aviation components	24,028	23,887	23,249
MRO services for heat transfer components and OEM of heat transfer solutions	23,440	22,541	23,101
MRO services for aviation components	27,423	28,474	23,502
Overhaul and coating of jet engine components	7,610	1,485	
Eliminations	(5,744)	(4,445)	(5,330)
Total cost of revenues	76,757	71,942	64,522
Gross profit	19,037	13,665	16,204
Research and development costs, net	1,140	890	1,070
Selling and marketing	3,876	2,903	3,203
General and administrative	10,023	8,469	8,123
Other expenses (income)	(138)	631	(11)
Gain on bargain purchase	-	(4,833)	-
	14,901	8,060	12,385
Operating income	4,136	5,605	3,819
Financial expense, net	(154)	(349)	(1,294)
Income before taxes on income	3,982	5,256	2,525
Taxes on income	3,865	644	1,360
Net income after taxes on income	117	4,612	1,165
Share in results of affiliated company and impairment of share in affiliated companies	(55)	1,237	267
Net income	$62	$5,849	$1,432

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

	Year Ended December 31,		
	2016	2015	2014
Revenues			
OEM of heat transfer solutions and aviation components	29.5%	31.9%	34.9%
MRO services for heat transfer components and OEM of heat transfer solutions	33.9	36.2	37.6
MRO services for aviation components	33.0	34.7	34.4
Overhaul and coating of jet engine components	9.6	2.2	-
Eliminations	(6)	(5)	(6.9)
Total revenues	100	100	100
Cost of revenues			
OEM of heat transfer solutions and aviation components	25.1	27.9	28.8
MRO services for heat transfer components and OEM of heat transfer solutions	24.5	26.3	28.6
MRO services for aviation components	28.6	33.3	29.1
Overhaul and coating of jet engine components	7.9	1.7	-
Eliminations	(6)	(5.1)	(6.6)
Cost of revenues	80.1	84	79.9
Gross profit	19.9	15.9	20.1
Research and development costs, net	1.2	1	1.3
Selling and marketing	4	3.4	4.0
General and administrative	10.5	9.9	10.1
Other income	(0.1)	0.7	*
Gain on bargain purchase	-	(5.6)	-
	15.6	9.4	15.3
Operating income	4.3	6.5	4.7
Financial expense, net	(0.2)	(0.4)	(1.6)
Income before taxes on income	4.1	6.1	3.1
Taxes on income	4.0	0.8	1.6
Net income after taxes on income	0.1	5.3	1.5
Share in results of affiliated company and impairment of share in affiliated companies	*	1.4	*
Net income	0.1 %	6.7 %	1.8 %

* Less than 0.1 percent

Year ended December 31, 2016 compared with Year ended December 31, 2015

Revenues. Total revenues were $95.8 million for the twelve months ended December 31, 2016, compared to $85.6 million for the twelve months ended December 31, 2015, an increase of 12%, 8.5% of which was derived from the consolidation of Turbochrome and 3.5% was derived from 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) full year consolidation for the first time in 2016 of the overhaul and coating of jet engine components segment.

Revenues from OEM of heat transfer solutions and aviation components. Revenues from the OEM of heat transfer solutions and aviation accessories operating segment increased to $28.3 million for the year ended December 31, 2016 from $27.4 million for the year ended December 31, 2015, an increase of 3% mainly due to increase in sales of aviation accessories.

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 $32.4 million for the year ended December 31, 2016, from $31 million for the year ended December 31, 2015, an increase of 5%, mainly due to higher demand for heat transfer solutions and services.

Revenues from MRO services for aviation components. Revenues from MRO services for aviation components operating segment increased to $31.6 million for the year ended December 31, 2016, from $29.7 million for the year ended December 31, 2015, an increase of 6%, 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 $9.2 million for the year ended December 31, 2016, from $1.9 million for the period as of October 19, 2015 until December 31, 2015. 2015 was the first time that this segment was consolidated following the acquisition of Turbochrome by TAT and 2016 was the first full-year consolidation of this segment.

Cost of revenues. Cost of revenues was $76.8 million for the twelve months ended December 31, 2016, compared to the $71.9 million for the twelve months ended December 31, 2015, an increase of 7%. This is primarily attributable to the first full-year consolidation in 2016 of the overhaul and coating of jet engine components segment.

Cost of revenues as a percentage of revenues was 80.1% for the twelve months ended December 31, 2016, compared to 84% for the twelve months ended December 31, 2015. This is primarily attributable to a decrease in the cost of revenue in the MRO services for aviation components segment (due to a periodic assessment of long-term projects during 2015).

Cost of revenues for OEM of heat transfer solutions and aviation accessories. Cost of revenues for the OEM of heat transfer solutions and aviation accessories operating segment increased to $24.0 million for the year ended December 31, 2016, from $23.9 million for the year ended December 31, 2015, an increase of 0.6%.

Cost of revenues as a percentage of revenues in this segment decreased to 85% in the year ended December 31, 2016, from 87.3% for the year ended December 31, 2015. The decrease is primarily as a result of product mix with high margin sold during the year 2016.

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 $23.4 million for the year ended December 31, 2016 from $22.5 million for the year ended December 31, 2015, an increase of 4%. The increase is primarily attributable to higher sales compared to 2015.

Cost of revenues as a percentage of revenues in this segment decreased to 72.3% in the year ended December 31, 2016 from 72.7% for the year ended December 31, 2015.

Cost of revenues for MRO services for aviation components. Cost of revenues for MRO services for aviation components operating segment decreased to $27.4 million for the year ended December 31, 2016 from $28.5 million for the year ended December 31, 2015, a decrease of 3.7%. This decrease is primarily attributed to the decrease in labor expenses and as a result of cost cutting measures implemented by the segment during 2016.

Cost of revenues as a percentage of revenues in this segment decreased to 86.7% in the year ended December 31, 2016 from 96% for the year ended December 31, 2015. The decrease is primarily attributable to: (i) a periodic assessment completed in 2015 of long-term projects after which we updated our estimates for expected profits to be earned from several long-term contracts. This assessment resulted in a decrease in revenues for the year ended December 31, 2015 in an amount of $2.1, while the accrued cost of revenue was not changed. (ii) The impact of cost cutting measures during 2016.

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 $7.6 million for the year ended December 31, 2016 from $1.5 million for the period from October 19, 2015 until December 31, 2015.

Cost of revenues as a percentage of revenues in this segment increased to 83% in the year ended December 31, 2016 from 78% in the period from October 19, 2015 until December 31, 2015. 2015 was the first time this segment was consolidated following the acquisition of Turbochrome by the TAT and 2016 was first full-year consolidation of this segment.

Research and development, net. Research and development expenses were $1.1 million for the twelve months ended December 31, 2016, compared to $0.9 million for the twelve months ended December 31, 2015, an increase of 28.1%.

Research and development expenses as a percentage of revenues were 1.2% for the twelve months ended December 31, 2016 compared to 1.0% for the twelve months ended December 31, 2015. TAT expects to invest 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 $3.9 million for the twelve months ended December 31, 2016, compared to $2.9 million for the twelve months ended December 31, 2015, an increase of 34.5% mainly due to the first full-year consolidation in 2016 of the overhaul and coating of jet engine components segment, as well as an increase in labor and direct expenses.

Selling and marketing expenses as a percentage of revenues were 4% for the twelve months ended December 31, 2016, compared to 3.4% for the twelve months ended December 31, 2015. TAT expects to invest additional resources in selling and marketing activities in the coming years.

General and administrative. General and administrative expenses were $10.0 million for the twelve months ended December 31, 2016, compared to $8.5 million for the twelve months ended December 31, 2015, an increase of 18.4%. The increase in general and administrative expenses was mainly attributable to the first full-year consolidation in 2016 of the overhaul and coating of jet engine components segment.

General and administrative expenses as a percentage of revenues were 10.5% for the twelve months ended December 31, 2016, compared to 9.9% for the twelve months ended December 31, 2015.

Other expenses (income). Other income was $ 0.1 million for the twelve months ended December 31, 2016, compared to an expense of $0.6 million for the twelve months ended December 31, 2015. Other expenses and income are mainly attributable to acquisition expenses related to the Turbochrome acquisition.

Gain on bargain purchase. For the twelve months ended December 31, 2015, TAT reported a gain on bargain purchase of $4.8 million. The gain on bargain purchase from the acquisition of Turbochrome is a result of the excess of the estimated fair value of certain assets and liabilities acquired over the purchase price of Turbochrome.

Financial expenses, net. Financial expenses, net for the twelve months ended December 31, 2016 were $0.2 million, compared to $0.3 million for the twelve months ended December 31, 2015. The decrease is primarily attributable to hedging transactions entered into by TAT in order to reduce its currency risk from expenses paid in NIS.

Taxes on income. Taxes on income for the twelve months ended December 31, 2016, amounted to $3.9 million (effective tax rate of 98%), compared to $0.6 million (effective tax rate of 11%) for the twelve months ended December 31, 2015. The increase is mainly attributed to the fact that the gain from the bargain purchase of $4.8 million which was recognized in 2015 is not taxable while 2016 includes a deferred tax liability of $2.7 million 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.

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, 2016, amounted to loss of $ 0.1 million during 2016 compared to a profit of $1.2 million for the twelve months ended December 31, 2015. In 2015, TAT recognized an income of $1.2 million mainly from the sale of 237,932 shares of Class B common stock of FAvS and its entire holdings (16,253) of FAvS' Series A preferred stock.

Year ended December 31, 2015 compared with Year ended December 31, 2014

Revenues. Total revenues were $85.6 million for the twelve months ended December 31, 2015, compared to $80.7 million for the twelve months ended December 31, 2014, an increase of 6%. This reflects (i) the decrease in revenues in the OEM of heat transfer solutions and aviation components 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 first-time consolidation in the fourth quarter of 2015 of the overhaul and coating of jet engine components segment.

Revenues from OEM of heat transfer solutions and aviation accessories. Revenues from the OEM of heat transfer solutions and aviation accessories segment decreased to $27.4 million for the year ended December 31, 2015 from $28.2 million for the year ended December 31, 2014, a decrease of 3% mainly due to decrease in sales of aviation components.

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 segment increased to $31 million for the year ended December 31, 2015, from $30.4 million for the year ended December 31, 2014, an increase of 2.1% mainly due to an increase in the demand.

Revenues from MRO services for aviation components. Revenues from MRO services for aviation components segment increased to $29.7 million for the year ended December 31, 2015, from $27.7 million for the year ended December 31, 2014, an increase of 7.2%. During a periodic assessment of our long-term projects, we updated our estimates of profits expected to be earned from several long-term contracts. This assessment resulted in a decrease in revenues for the year ended December 31, 2015 in an amount of $2.1 mainly due to higher cost accrued and lower revenues expected from those long-term projects.

Revenues from overhaul and coating of jet engine components. Revenues from overhaul and coating of jet engine components segment was $1.9 million for the period October 19, 2015 until December 31, 2015. This is the first time this segment is being consolidated following the acquisition of Turbochrome by TAT.

Cost of revenues. Cost of revenues was $71.9 million for the twelve months ended December 31, 2015, compared to the $64.5 million for the twelve months ended December 31, 2014, an increase of 11.5%. This is primarily attributable to the increase in the cost of revenue mainly in the MRO services for aviation components segment and the first-time consolidation in the fourth quarter of 2015 of the overhaul and coating of jet engine components segment.

Cost of revenues as a percentage of revenues was 84% for the twelve months ended December 31, 2015, compared to 79.9% for the twelve months ended December 31, 2014. This is primarily attributable to an increase in the cost of revenue in the MRO services for aviation components segment.

Cost of revenues for OEM of heat transfer solutions and aviation accessories. Cost of revenues for the OEM of heat transfer solutions and aviation components operating segment increased to $23.9 million for the year ended December 31, 2015, from $23.2 million for the year ended December 31, 2014, an increase of 2.7%. The increase is primarily attributable to product mix, increase in direct labor costs, quality assurance costs and overhead related to manufacturing during 2015.

Cost of revenues as a percentage of revenues in this segment increased to 87.3% in the year ended December 31, 2015, from 82.5% for the year ended December 31, 2014. The increase is primarily a result of product mix with a lower margin sold during 2015 along with a higher rate of fixed production costs in 2015 compared with 2014.

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 decreased to $22.5 million for the year ended December 31, 2015 from $23.1 million for the year ended December 31, 2014, a decrease of 2.4%. The decrease is primarily attributable to lower material cost.

Cost of revenues as a percentage of revenues in this segment decreased to 72.7% in the year ended December 31, 2015 from 76.1% for the year ended December 31, 2014, primarily as a result of reductions in material cost and no increase in headcount.

Cost of revenues for MRO services for aviation components. Cost of revenues for MRO services for aviation components operating segment increased to $28.4 million for the year ended December 31, 2014 from $23.5 million for the year ended December 31, 2014, an increase of 20.9%. This increase is primarily attributed to an increase in labor and material cost compared to the rate of increase in sales during 2015.

Cost of revenues as a percentage of revenues in this segment increased to 96% in the year ended December 31, 2015 from 84.7% for the year ended December 31, 2014. The increase is primarily attributable to: (i) the increase in the cost of revenue due to the type of services and the cost accumulated to certain services, and (ii) an update of our estimates of expected profits to be earned from several long-term contracts following a periodic assessment of these projects which resulted in a decrease in revenues for the year ended December 31, 2015 in an amount of $2.1 million, while the accrued cost of revenue was not changed.

Cost of revenues for overhaul and coating of jet engine components. Cost of revenues for the overhaul and coating of jet engine components segment was $1.5 million for the period as of October 19, 2015 until December 31, 2015.

Cost of revenues as a percentage of revenues in this segment was 78% in the period from October 19, 2015 until December 31, 2015.

Research and development, net. Research and development expenses were $0.9 million for the twelve months ended December 31, 2015, compared to $1.1 million for the twelve months ended December 31, 2014, a decrease of 16.8%. Research and development expenses as a percentage of revenues were 1.0% for the twelve months ended December 31, 2015 compared to 1.3% for the twelve months ended December 31, 2014.

Selling and marketing. Selling and marketing expenses were $2.9 million for the twelve months ended December 31, 2015, compared to $3.2 million for the twelve months ended December 31, 2014, a decrease of 9.4% mainly due to decrease in labor and direct expenses.

Selling and marketing expenses as a percentage of revenues were 3.4% for the twelve months ended December 31, 2015, compared to 4.0% for the twelve months ended December 31, 2014.

General and administrative. General and administrative expenses were $8.5 million for the twelve months ended December 31, 2015, compared to $8.1 million for the twelve months ended December 31, 2014, an increase of 4.3%. The increase in general and administrative expenses was mainly attributable to the first-time consolidation in the fourth quarter of 2015 of the overhaul and coating of jet engine components segment after the completion of Turbochrome's acquisition.

General and administrative expenses as a percentage of revenues were 9.9% for the twelve months ended December 31, 2015, compared to 10.1% for the twelve months ended December 31, 2014.

Other expenses (income). For the twelve months ended December 31, 2015, TAT reported other expenses of $0.6 million, mainly attributable to acquisition expenses related to Turbochrome's acquisition, compared to $0 for the year ended December 31, 2014.

Gain on bargain purchase. For the twelve months ended December 31, 2015, TAT reported a gain on bargain purchase of $4.8 million. The gain on bargain purchase from the acquisition of Turbochrome is a result of the excess of the estimated fair value of certain assets and liabilities acquired over the purchase price of Turbochrome.

Financial expenses. Financial expenses for the twelve months ended December 31, 2015 were $1.3 million, compared to $2.5 for the twelve months ended December 31, 2014. The decrease is primarily attributable to losses on forward transactions that were entered into in order to reduce currency risk from expenses paid in NIS during the twelve months ended December 31, 2014, and that had a smaller impact during the twelve months ended December 31, 2015. The decrease is also attributed to the changes in exchange rates between the U.S. dollar and the Israeli Shekel.

Financial income. Financial income for the twelve months ended December 31, 2015 was $0.9 million, compared to $1.2 million for the twelve months ended December 31, 2014. Financial income during the twelve-month period ended on December 31, 2014 primarily resulted from changes in exchange rates between the U.S. dollar and the Israeli Shekel, interest received from the Israeli tax authorities for excess payments made in previous years and from interest received on short-term investments.

Taxes on income. Taxes on income for the twelve months ended December 31, 2015, amounted to $0.6 million (effective tax rate of 11%), compared to $1.4 million (effective tax rate of 56%) for the twelve months ended December 31, 2014. The decrease is mainly attributed to the $4.8 million gain from bargain purchase which is not taxable.

Share in results of equity investment of affiliated company. TAT recognized income of $1.2 million for the twelve months ended December 31, 2015 mainly from the sale of 237,932 shares of Class B common stock of FAvS and its entire holdings (16,253) of FAvS' Series A preferred stock compared to an income of $0.3 million for the twelve months ended December 31, 2014.

Net income from continuing operations. TAT recognized net income from continuing operations of $5.8 million for the twelve months ended December 31, 2015 compared to net income of $1.4 million for the twelve months ended December 31, 2014. The increase is primarily attributable to the $4.8 million gain on bargain purchase related to the acquisition of Turbochrome. The increase was offset by a periodic assessment of profit estimates for several long-term contracts of TAT, which resulted in a decrease of $1.4 million in net income for the same period.

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 polices 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.

The following table presents information about the rate of inflation in Israel, the rate of devaluation (appreciation) of the NIS against the U.S. dollar, and the rate of inflation of Israel adjusted for the devaluation:

Year ended December 31,	Israeli inflation rate%	NIS appreciation (devaluation) to the US dollar rate%	Israeli inflation adjusted for appreciation (devaluation) %
2003	(1.9)	7.6	5.7
2004	1.2	1.6	2.8
2005	2.4	(6.8)	(4.4)
2006	(0.1)	8.2	8.1
2007	3.4	9.0	12.4
2008	3.8	1.1	4.9
2009	3.9	0.7	4.6
2010	2.7	6.4	9.1
2011	2.2	(7.7)	(5.5)
2012	1.4	2.3	3.7
2013	2.0	7.5	9.5
2014	(0.2)	12	11.8
2015	(0.1)	0.3	0.2
2016	(0.2)	(1.5)	(1.7)

The devaluation of the NIS in relation to the U.S. dollar has the effect of reducing the U.S. dollar amount of any of its expenses or liabilities which are payable in NIS, unless these expenses or payables are linked to the U.S. dollar. Such a devaluation also has the effect of decreasing the U.S. dollar value of any asset which consists of NIS or receivables payable in NIS, unless the receivables are linked to the U.S. dollar. Conversely, any increase in the value of the NIS in relation to the U.S. dollar has the effect of increasing the U.S. dollar value of any unlinked NIS assets and the U.S. dollar amounts of any unlinked NIS liabilities and expenses. During 2013 the NIS appreciated against the U.S. dollar by 7.5%. This trend continued in 2014, during which the NIS appreciated by an additional 12% by the end of 2014. During 2015 the exchange rates between the NIS and the U.S. dollar did not change materially. During 2016 the NIS appreciated against the U.S dollar by 1.5%. This trend has continued through the end of March 2017, during which the NIS appreciated by additional 4%.

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 25% for the year ended December 31, 2013 and 26.5% for the years ended December 31, 2014 and 2015. In 2016, the regular corporate tax rate was 25%. In 2017 and 2018 the regular corporate tax rate will be reduced to 24% and 23%, respectively.

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 current 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. As with dividends distributed from taxable income derived from Approved or Beneficiary Enterprises during the applicable benefits period, dividends distributed 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 Approved and Beneficiary Enterprises 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, 2016, 2015 and 2014.

Recently Issued Accounting Standards

(1) In November 2016, the Financial Accounting Standards Board ("FASB") issued guidance on the treatment of restricted cash in the statements of cash flows. Amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The guidance will be effective for the fiscal year beginning on January 1, 2018, including interim periods within that year (early adoption is permitted). TAT does not anticipate a material impact on its consolidated financial statements.

(2) In October 2016, the FASB issued guidance on income taxes on intra-entity transfers. The guidance eliminates the exception to the recognition requirements under the standard for intra-entity transfers of an asset other than inventory. As a result, an entity should recognize the income tax consequences when the transfer of assets other than inventory occurs. The guidance will be effective for the fiscal year beginning on January 1, 2018, including interim periods within that year (early adoption is permitted). The Company is currently evaluating the potential effect of the guidance on its consolidated financial statements.

(3) In August 2016, the FASB issued guidance on statements of cash flows. The guidance addresses eight specific issues: debt prepayment or debt extinguishment costs; settlement of certain debt instruments; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies; distributions received from equity method investees; beneficial interest in securitization transactions; separately identifiable cash flows and application of predominance principle. The guidance will be effective for the fiscal year beginning on January 1, 2018, including interim periods within that year (early adoption is permitted). The Company is currently evaluating the potential effect of the guidance on its consolidated financial statements.

(4) 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 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.

(5) In February 2016, the FASB issued ASU 2016-02 – Leases (ASC 842), 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, respectively. A lessee is also required to record a right-of-use 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 is in the process of evaluating the impact of this new guidance on its financial statements.

(6) In March 2016, the FASB issued ASU No. 2016-09, Compensation – Stock Compensation (Topic 718). ASU No. 2016-09 identifies areas for simplification involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. The amendments are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted but all of the guidance must be adopted in the same period. The Company is in the process of evaluating the impact of this new guidance on its financial statements.

(7) July 2015, the FASB issued guidance on current accounting for inventory measurement. The new guidance requires entities to measure inventory at the lower of cost or net realizable value. Net realizable value is defined by the guidance as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The guidance is effective for the interim and annual periods beginning on or after December 15, 2016 (early adoption is permitted). The Company is currently evaluating the impact of the new guidance on its consolidated financial statements. The Company does not anticipate a material impact on its consolidated financial statements.

(8) In May 2014, FASB issued Accounting Standards Update No. 2014-09 (ASU 2014-09) "Revenue from Contracts with Customers." ASU 2014-09 will supersede most current revenue recognition guidance, including industry-specific guidance. The underlying principle is that an entity will recognize revenue upon the transfer of goods or services to customers in an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. 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 also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity’s contracts with customers. The guidance is effective for the interim and annual periods beginning on or after December 15, 2017 (early adoption is permitted in annual periods beginning after December 15, 2016). The guidance permits the use of either a retrospective or cumulative effect transition method. The Company is currently evaluating the impact of the amended guidance on its consolidated financial statements.

Liquidity and Capital Resources

As of December 31, 2016, TAT had cash and cash equivalents and short-term bank deposits of $22.4 million, compared with cash and cash equivalents and short-term bank deposits of $26.8 million as of December 31, 2015.

Capital expenditures for the years ended December 31, 2016, 2015 and 2014 were approximately $5.7 million, $3.3 million and $3.0 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)		
	2016	2015	2014
Net cash provided by (used in) operating activities	$5,521	$733	$(1,458)
Net cash provided by (used in) investing activities	594	(4,470)	4,624
Net cash used in financing activities	(3,370)	(469)	(2,909)
Net increase (decrease) in cash and cash equivalents	2,745	(4,206)	257
Cash and cash equivalents at beginning of the year	18,688	22,894	22,637
Cash and cash equivalents at end of the year	$21,433	$18,688	$22,894

The net cash provided by operating activities for the year ended December 31, 2016, amounted to approximately $5.5 million, compared to net cash provided by operating activities of $0.7 million for the year ended December 31, 2015 and net cash used in operating activities of $1.5 million for the year ended December 31, 2014.

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 upwards 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 provided by operating activities for the year ended December 31, 2015 was principally derived from $5.8 million of net income and from the following adjustments of non-cash line items: an upwards adjustment of $2.8 million for depreciation and amortization; an upward adjustment of $0.5 million for increase in other accounts payable and accrued expenses; and an upwards adjustment of $0.4 million for increase in trade accounts payable. This was offset by a downward adjustment of $1.2 million for share in results and sale of equity investment of affiliated company; a downward adjustment of $2.4 million for increase in trade accounts receivable; a downward adjustment of $0.6 million for increase in inventory; and a downward adjustment of $4.8 million for onetime gain on bargain purchase.

Net cash used in operating activities for the year ended December 31, 2014 was principally derived from $1.4 million of net income from continuing operations and from the following adjustments of non-cash line items: an upwards adjustment of $2.1 million for depreciation and amortization; an upwards adjustment of $2.7 million for decrease in accounts receivable; and an upward adjustment of $1.2 million for decrease in net deferred income tax asset. This was offset by a downward adjustment of $0.3 million for share in results of affiliated company; an downward adjustment of $6 million for increase in inventories; a downward adjustment of $0.5 million for decrease in liability in connection with employee retirement rights; a downward adjustment of $0.8 million for increase in other accounts receivable, prepaid expenses and funds in connection with employee retirement rights; a downward adjustment of $0.5 million for decrease in accounts payable and a downward adjustment of $0.7 million for decrease in other accounts payable and accrued expenses.

Net cash provided by investing activities was approximately $0.6 million for the year ended December 31, 2016, compared to net cash used in investing activities of $4.5 million for the year ended December 31, 2015 and net cash provided by investing activities of approximately $4.6 million for the year ended December 31, 2014.

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.

Of the cash provided by investing activities in the year ended December 31, 2015 approximately $3.3 million was used for the purchase of property and equipment, primarily production equipment and building improvements, $8.1 million was used for investment in short-term deposit and $1.8 million was used for an acquisition of a subsidiary (net of cash acquired). This was offset by $5.1 million from maturities of short-term deposits and $3.6 million from proceeds from the sale of an equity investment in an affiliated company.

Of the cash provided by investing activities in the year ended December 31, 2014 approximately $3.0 million was used for the purchase of property and equipment, primarily production equipment and building improvements, offset by $5.1 million from maturities of short-term deposits and $2.2 million from the sale of a subsidiary.

Net cash used in financing activities was approximately $3.4 million for the year ended December 31, 2016, compared to net cash used in financing activities of approximately $0.5 million for the year ended December 31, 2015 and net cash used in financing activities of approximately $2.9 million for the year ended December 31, 2014.

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.

In the year ended December 31, 2015, the net cash used in financing activities was primarily attributable to repayments of $0.5 million of short-term loans.

In the year ended December 31, 2014, the net cash used in financing activities was primarily attributable to repayments of $0.9 million of long-term credit and payment of $2 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, 2016, 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	9,266	1,271	2,210	2,187	3,598
Purchase commitments	1,666	1,562			