3.8 ENVIRONMENTAL POLICY

Reducing our Company's environmental impact is an indispensable element of our sustainable development. With that in mind, our environmental protection programme includes the following key priorities:

- Resource management, including the development and implementation of technologies to ensure efficient use of natural resources;
- Taking steps to avoid contributing to man-made climate change and paying suitable compensation for any environmental damage caused;
- Monitoring the environmental impact of our business operations;
- Ensuring environmental protection in line with international standards.

As part of our overall Policy on Health and Safety Management, we conduct regular audits to ensure stringent compliance with international standards on atmospheric emissions. We are able to keep our emissions at low levels by focusing on our fleet: in addition to operating young and efficient aircraft whenever possible, we are also taking steps to modify older aircraft that do not meet emissions standards.

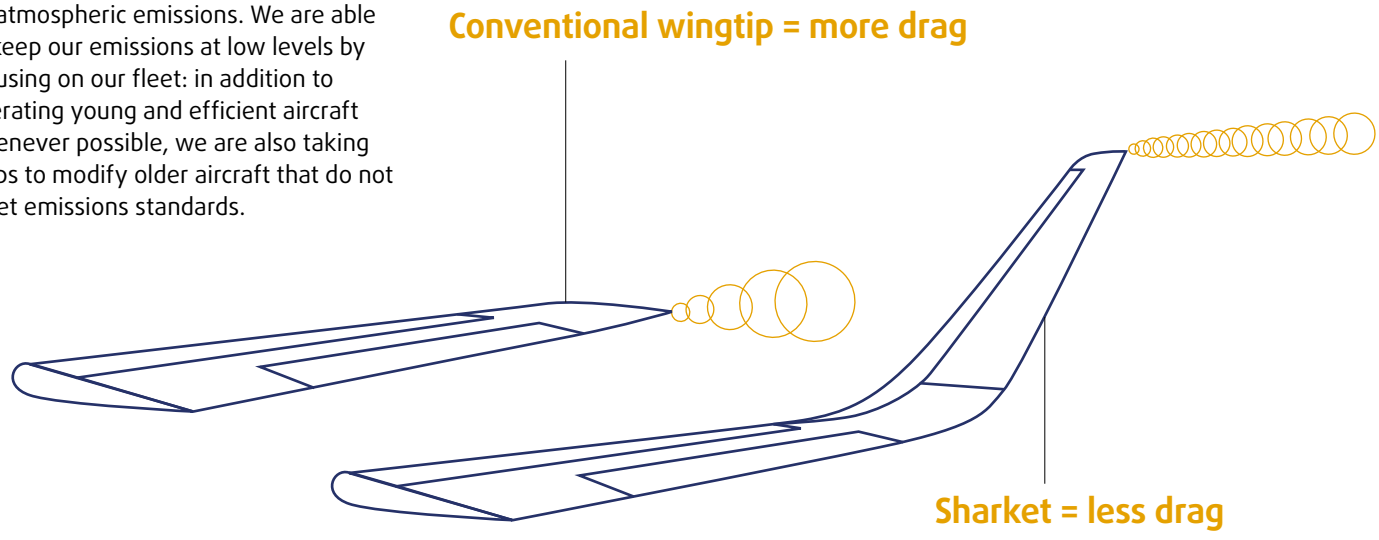
A young fleet

Our Company is the only airline in Kazakhstan operating aircraft from the Airbus A319/320/321 family. In addition to offering passengers a high level of comfort, all of these aircraft are also very environmentally friendly, ensuring the best fuel economy and lowest levels of emissions and noise footprint in their class. The Airbus A320 NEO features innovative Pratt & Whitney engines that are 15% more fuel-efficient than their predecessors. Air Astana's first Airbus A320 NEO was delivered and put into service in November 2016. The A320 NEO will operate on domestic flights, as well as international flights to China, India, Russia, Turkey and the United Arab Emirates.

Our Company also operates a number of Boeing 757–200 aircraft, which feature innovative technologies enabling excellent fuel efficiency, low noise levels, a high level of comfort and excellent operating performance.

Aircraft modifications

Modifying aircraft through the addition of winglets (Boeing) or sharklets (Airbus), provides two benefits: first, they enable greater fuel efficiency; and, second, by improving aerodynamics, they make more rational flight routing possible.



Reducing greenhouse-gas emissions

Our Health and Safety Department monitors compliance with applicable environmental regulations and ensures the timely maintenance of all liquid-fuelled equipment—aircraft, diesel power plants, special-purpose vehicles and automobiles—an important step towards lowering emissions of greenhouse gases.

In addition to controlling emissions, our environmental protection efforts also focus on recycling. For example, we separate all of our waste paper and recycle PET bottles and used batteries. In 2017, we also began recycling two other types of waste: metal shavings and waste water used to wash wheels and brakes. Last year, some 130,000 litres of waste water was removed our authorised contractor, PromTehnoResurs.

By improving our collection and transfer procedures, we increased the volume of our recycled waste paper by 13 tonnes in 2017 year-on-year.

Water consumption by source

9.4 million litres

Total waste by type

Total solid waste by hazard grade	2015	2016	2017
Grade 1 (Amber List of waste)	Astana: 2.191 tonnes Almaty: 6.465 tonnes	Astana: 2.577 tonnes Almaty: 6.708 tonnes	Astana: 3.205 tonnes Almaty: 7.969 tonnes
Grade 2 (Green List of waste)	Astana: 24.182 tonnes Almaty: 1.020 tonnes (excluding solid waste)	Astana: 55.025 tonnes Almaty: 2,913 tonnes	Astana: 81.657 tonnes Almaty: 2,905 tonnes

Solid waste utilisation, burial and recycling in 2017

	Tonnes
Reuse (waste paper)	80.87
Other (disposed of by an authorised contractor)	Hazardous waste Astana: 3.340 tonnes Almaty: 9.059 tonnes Solid waste Astana: 81.522 tonnes Almaty: 2,904 tonnes

Solid waste utilisation

99,9%

Total costs and investment in environmental protection

	2015	2016	2017
Modernisation (monitoring systems in Astana and Almaty, schedules, containers, maximum permitted emissions, KIOSH	USD 5,485	USD 3,296	USD 4,819
Grade 2 (Green List of waste)	Astana: USD 433 Almaty: USD 91,672	Astana: USD 1,185 Almaty: USD 57,411	Astana: USD 1,914 Almaty: USD 61,706
Emissions treatment	Astana: USD 388 Almaty: USD 2,066	Astana: USD 332 Almaty: USD 1,366	Astana: USD 372 Almaty: USD 1,555
Total	**USD 100,044**	**USD 63,589**	**USD 70,367**

Total costs and investment in environmental protection

	2015	2016	2017
Costs of measures to reduce environmental impact and for the environmental management system	USD 96,661	USD 63,589	USD 53,190
Staff for education and training	USD 681	USD 1,032	USD 531
External services for the environmental management system	USD 5,485	USD 3,296	USD 4,820
Research and development	USD 4,804	USD 951	USD 2,090
Additional costs for the implementation of clean technologies(containers for batteries)		USD 280	USD 756
Other costs related to environmental management	USD 85,690	USD 58,030	USD 44,994
Total	**USD 96,661**	**USD 63,589**	**USD 53,189**

Emissions

Greenhouse-gas emissions

	2015	2016	2017	Reason for significant changes in emissions that triggered a recalculation of base-year emissions
Greenhouse-gas emissions, in metric tonnes of CO_2 or equivalent	Almaty: 678.319 Astana: 730.611	Almaty: 671.468 Astana: 700.175	Almaty: 700.2149 Astana: 697.088	Diesel power plants in Almaty are operated more intensively compared to Astana

Energy consumption by energy type

Total energy consumption	Total energy consumption		
	2015	2016	2017
Electricity (kW)	2,572,598	2,272,981	2,680,210
Heat (Gcal)	620	600	640

Educational projects

Given the importance of environmental issues for our business, we hold environmental competitions to promote environmental awareness, organise events to celebrate World Environment Day and run internal campaigns to educate staff on environmental protection. In 2017, we held a drawing competition for employees' children called "The Environment: The World through Children's Eyes". The winning drawings were printed in our 2018 corporate desk calendars.