HAECO Group











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HAECO Welcomes New Customer

On 13 April, HAECO signed an agreement with Nippon Cargo Airlines (NCA), covering airframe maintenance on the airline's Boeing 747-400 freighter aircraft. The ceremony was attended by Mr. Takuzo Nomura, NCA's Senior Executive Managing Director, Engineering & Maintenance and Mr. Hiroshi Ikeya, Vice President & General Manager, Maintenance Planning, together with senior members of the NCA management team. The agreement was signed by Mr. Nomura and HAECO's CEO, Mr. Augustus Tang, and Commercial Director, Mr. Summit Chan.

HAECO has been providing Line Maintenance services to NCA since 2000. In 2004, the Company began providing A Check services to NCA's 747F classic fleet, and upon its retirement in 2008, extended to the 747-400F fleet. The C Check service agreement, under the newly-awarded JCAB approval [No.1222], marks a major milestone in the long-term business relationship between NCA and HAECO. **F**



HAECO/UPS Mark 10-Year Partnership

On 18 November last year, HAECO got together with UPS for their annual maintenance review meeting. The occasion also marked the tenth anniversary of HAECO's business partnership with UPS – having logged some 187 maintenance inputs over the past decade.

In 2010, UPS ferried two ex-Cargolux Boeing 747-400F to HAECO from Roswell, New Mexico, for transition checks and standardisation avionic modifications. The avionic modifications included SATCOM, ACARS, EGPWS, ISFD and HF DataLink. The work turned out to be extremely challenging, but HAECO managed to complete the modifications on the two freighters in record times. Transition checks and C/D Checks on another two ex-Cargolux Boeing 747-400F purchased by UPS were carried out in March and June 2011.





HAECO Group Services Air Hong Kong's First 747BCF

Air Hong Kong (AHK) received its first Boeing 747BCF on lease from Cathay Pacific Airways in May this year; the aircraft primarily serves the intra-Asia routes, based in Singapore.

Three HAECO Group companies – HAECO, Taikoo (Xiamen) Aircraft Engineering Co. Ltd. (TAECO) and Singapore HAECO Pte. Ltd. (SHAECO) – have been providing Airframe Maintenance and Line Maintenance services to the cargo airline's newest freighter since May.

The aircraft completed a D check at TAECO, before commencing operations for AHK on 30 May. Since then, HAECO Hong Kong has been providing Line Maintenance services to the aircraft, in addition to AHK's A300-600 fleet; the 747BCF undertakes a unique maintenance programme that fully utilises its ground time.

Meanwhile, taking advantage of a 12-hours-plus ground slot in Singapore, SHAECO provides defect rectification and unscheduled maintenance to the freighter. In addition, the HAECO Hong Kong Fleet Technical Support (FTS) team supports SHAECO in managing planned defect clearance for the aircraft. **F**



HAECO Completes Heavy Check on Flying Test Bed

In June, HAECO completed a C check on GE Aviation's Boeing 747-100 engine test bed. GE Aviation, a world-leading provider of jet and turboprop engines, components and integrated systems for civil and military aircraft, has been operating the flying test bed, registered N747GE, since 1992. N747GE first flew in 1970 and is one of the first generation of the Boeing 747 family and the fifth oldest aircraft of its kind in the world; it has been used to test a wide variety of engines in flight. The recent C check marked N747GE's third heavy check visit to HAECO; the aircraft will continue in service for the next three years and will then be retired.

Recently, GE Aviation acquired a Boeing 747-400 aircraft, which will be turned into a new flying test bed for the next generation of jet engines such as the GEnx engines powering the new Boeing 787 and 747-8 families of aircraft. **F**

Cabin Reconfiguration +



Completion of Delta Air Lines Flat Bed Programme

In 2010, Delta Air Lines appointed HAECO to conduct its Boeing 767-400 Flat Bed Modification Programme. Since September last year, HAECO has carried out modification work to install flat beds in BusinessElite on 14 of the Delta passenger fleet's Boeing 767-400 aircraft, completing the programme in May. On 2 June, Delta Air Lines organised a ceremony to celebrate the event, handing out souvenirs to over 700 HAECO staff who participated in the Flat Bed Modification Programme. On the same occasion, HAECO presented Delta Air Lines with an engraved crystal memento. **F**



Line Maintenance +



HAECO Receives "Excellent Performance Award" from EVA Air

Travel & Leisure magazine readers have rated Taiwan's EVA Air as one of world's Best International Airlines in their 2010 awards. At the dinner reception in March this year, HAECO was presented with an "Excellent Performance Award" for its contribution to the airline's high safety standards and quality service. Mr. Clark Yeh and Mr. Bryan Chang – respectively, General Manager and Station Manager of EVA Air – presented the award to Mr. Warren Chim, HAECO's Executive General Manager, Line Maintenance.

Line Maintenance \rightarrow





Emergency Lightning Strike Repairs

On 22 May, an Emirates Boeing 777 freighter was struck by lightning, causing damage to 29 different parts of its fuselage. The HAECO Line Maintenance transit team came to the rescue, coordinating with HAECO's sheet metal team and other departments to successfully carry out rapid emergency repairs on the aircraft – receiving compliments from Emirates' Head Office for their outstanding work.

HAECO Readies for New Boeing 747-8F

HAECO's Line Maintenance customer, Cargolux Airlines International, will be its launch customer for the Boeing 747-8F, when the airline commences operating this new aircraft type later this year. HAECO has begun conducting approved certification training for its engineers. Other HAECO customers, including Cathay Pacific Airways, AirBridgeCargo, Atlas Air, Global Supply System, Korean Air and Nippon Cargo Airlines, have also placed orders for the Boeing 747-8F.

Line Maintenance +



HAECO Helps Create New Guinness World Records

To celebrate the 100th anniversary of aviation in Hong Kong, the Hong Kong Civil Aviation Department and the local aviation industry jointly organised an aircraft pull event on 17 March. The event was presided over by Mr. Henry Tang, the Chief Secretary for Administration of the Hong Kong SAR, and the initiative created two new Guinness World Records.

Four aircraft, weighing 474.72 tonnes in total, and comprising a Boeing 747 from Cathay Pacific Airways, two Airbus A330s from Dragonair and Hong Kong Airlines and a Zlin Z242L aircraft from the Government Flying Service, were pulled for 50 metres by four teams of 260 people, creating a new record for the "heaviest combined weight of aircraft pulled simultaneously". The pullers included representatives from the Legislative Council and District Council, aviation professionals and members of the general public.

A second record attempt saw a Boeing 747 aircraft weighing 218.56 tonnes pulled forward for 100 metres by 100 members of the disciplinary and security staff working at the airport. Their efforts broke the record for the "heaviest aircraft pulled over 100 metres by a team".

In preparation for the aircraft pull event, HAECO mobilised over 100 staff, ranging from General Managers to brakemen, to carry out four trial pulls in collaboration with other Hong Kong International Airport volunteers, between December 2010 and February 2011. Thanks to these "dress rehearsals" the March 17 record attempts were an outstanding success and the airport community was able to take home two new Guinness World Records.

Inventory Technical Management 🔶



HAECO ITM Prepares to Launch New AHK Line Stations

The HAECO Inventory Technical Management (ITM) team is gearing up to launch new line stations for Air Hong Kong (AHK) in Beijing and Manila. AHK, a Hong Kong-based express cargo carrier, is scheduled to commence operations to the two cities in July and September, increasing the number of routes operated by the airline's own freighters from seven to nine this summer.

AHK is a joint venture between Cathay Pacific Airways and DHL Express. It operates eight A300-600F "general freighters" and serves ten routes between Hong Kong and major Asian cities, of which seven are operated by its own A300-600F freighters; the remaining routes are operated under wet-lease arrangements. The HAECO ITM team has provided inventory management services to AHK's A300-600F fleet since 2004.

HAECO has commenced pre-operation setup and components have been positioned in Beijing to provide unscheduled services. With assistance from the Engineering and Cargo Departments of both Air Hong Kong and Cathay Pacific, local logistics and warehousing arrangements have entered their final stages.

ITM service is part of HAECO's end-to-end technical management solutions. It provides asset management, reliability management, supply chain management, component engineering services, and comprehensive 24/7 AOG support to customers. By managing daily repair and logistics arrangements, HAECO enables its airline customers to focus on their core businesses. *****

Component Services +

TALSCO Wins New Boeing Contract

Taikoo (Xiamen) Landing Gear Services Co. Ltd. (TALSCO) has been awarded a 747-400ERF landing gear overhaul programme by Boeing. The first order involves six ship sets of landing gear, scheduled to commence in mid-2011. TALSCO is a Boeing-approved landing gear repair and overhaul station, and has long-term contracts for Boeing 737NG, 747 and 767 programmes.



Engine Overhaul +



Rolls-Royce CEO Visits HAESL

On 25 March, Mr. John Rishton, the new Chief Executive of Rolls-Royce, and Mr. Richard Margolis, Regional Director, North East Asia, for the aero-engine manufacturer, paid a visit to Hong Kong Aero Engine Services Limited (HAESL). Mr. Rishton and Mr. Margolis met the HAESL team and were given a tour of the facility, including the Phase V extension, which was officially opened on 15 June. Mr. Tim Blackburn, Director and General Manager of HAESL, presented Mr. Rishton with a gift of a model sailing junk sail – a traditional Chinese sailing vessel developed during the Han Dynasty and is still used in Hong Kong today. The junk was machined in titanium by HAESL's Component Repair team, using a RB211-524 C2 LP compressor fan blade. **F**

Engine Overhaul +



Industrial Centre Training Programme

The Industrial Centre Training Programme is a joint project between HAESL and The Hong Kong Polytechnic University (HKPU). The aim of this programme is to provide new trainees with basic workshop knowledge in both technical and safety areas.

This 16-week full-time training programme at HKPU is tailored for trainees with no previous experience in engineering or machine operation. With the guidance of an engineer and a mentor, the trainees gain valuable experience in machine skills, such as turning, milling and grinding, in an interactive learning environment.

After completing the Industrial Centre Training Programme, the trainees will commence industry-specific on-the-job-training with HAESL.

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Interview with All Nippon Airways

Taki Takashi Manager, Planning Control - Outsourcing, Airframe Maintenance Center, All Nippon Airways



All Nippon Airways (ANA) was one of Taikoo (Xiamen) Aircraft Engineering Co. Ltd. (TAECO)'s early customers, when the company was first established in 1996. What are your views on TAECO's services?

Taki Takashi

What qualities do you consider vital to an MRO?

Taki Takashi

What is the main focus of your job? What challenges do you face and how do you see TAECO's role in helping you meet these challenges?

A Taki Takashi

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Interview with All Nippon Airways

Taki Takashi Manager, Planning Control - Outsourcing, Airframe Maintenance Center, All Nippon Airways



Which aspects of TAECO's services do you particularly appreciate?

You head up ANA's team of on-site technical representatives based at TAECO. How are your team enjoying their time in Xiamen? Have they faced any difficulties in adapting to life in Xiamen as a result of the language barrier and cultural differences?

Taki Takashi



Delta Aids Habitat for Humanity

Delta Air Lines, one of HAECO's major customers, will join forces with Habitat for Humanity, to help build five Habitat houses in Pinghu, a municipality near Shanghai, as part of Delta's Force for Global Good Programme to effect positive local and global change.

This is Delta's seventh international build with Habitat for Humanity. Delta employees from around the globe use vacation time and pay a portion of their expenses to volunteer on the international builds and help those in need of simple, decent and affordable housing. Delta has been involved in similar projects in South Africa, Ghana, India, Thailand and Chile.

The 767-300 featuring a unique Habitat for Humanity livery and a Delta "Force for Global Good" decal visited HAECO in May. ►



HAECO Supports Air New Zealand's CSR Initiative

In April, 15 children from Po Leung Kuk, a leading social service organisation in Hong Kong that provides support to the young and the innocent, were invited to a party on a plane by Air New Zealand – their first experience of being on board an aircraft. The children enjoyed in-flight meals and entertainment and participated in an aircraft maintenance quiz – enjoying an afternoon they will long remember. HAECO supported the event at HKIA by sponsoring basic ground handling and in-flight entertainment maintenance to the airline.



TAECO Joins Hands with Xiamen University

On 21 April, the Swire Group Charitable Trust signed a Memorandum of Understanding with Xiamen University, promising to donate RMB 5.6 million to the University to establish a marine research station in Fujian province.

The station will serve as a time-series observation, marine ecology, ocean engineering and marine instrumentation laboratory. In addition, it will be a dive-training centre for marine archaeological research, monitoring marine ecosystem responses to both global climate and human-induced environmental changes.

In 2008, TAECO developed a joint outreach programme with the State Key Laboratory of Marine Environmental Science at Xiamen University, to help fund mangrove replanting programmes along the estuary of the Jiulong River, in Fujian Province, as well as public lectures on marine and environmental protection. The establishment of the marine station will further promote the collaboration between TAECO and Xiamen University. It will facilitate the University's climate research, while establishing an important site for marine education and public outreach.

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HAESL Joins HKSTP Recruitment Day

On 26 March, HAESL took part in a Recruitment Day organised by the Hong Kong Science & Technology Parks Corporation (HKSTP) to attract high-calibre university graduates for graduate trainee positions. The job fair is primarily designed for HKSTP's tenants in its Science Parks and three industrial estates; around 60 companies participated in the Recruitment Day, providing more than 400 job vacancies.

HAESL's career talk, focusing on its Engineering Graduate Trainee (EGT) Programme, attracted nearly 90 applications for graduate positions. HAESL's EGT programme is a fouryear programme run in conjunction with partner companies. It aims to pave the way for trainees to achieve membership of the Hong Kong Institute of Engineers and includes extensive on-the-job training in different HAESL departments, as well as job placements with Cathay Pacific Airways and Rolls-Royce in the UK.

The Recruitment Day also provided a good opportunity to strengthen the cooperative relationship between HAESL and HKSTP. \blacktriangleright



HAESL "iCare iReport" Programme

In support of its Health & Safety policy's "zero tolerance" approach to accidents in the workplace, HAESL implemented a companywide "iCare iReport" programme in September last year. Employees are encouraged to proactively report near misses, unsafe acts or unsafe conditions relating to people, product or machinery. Since inception of the programme, over 400 reports have been logged.

The issues reported cover a number of hazard types, ranging from electrical safety, manual handling, product handling, slip and trip hazards, to enclosed/hidden working risks for employees and issues concerning working at height. Employees also raised issues regarding potential hazards caused by the Company's on-site contractors and suppliers, such as excessive vehicle speed. On-site suppliers are also encouraged to participate in the programme and raise any issues they identify while working at the HAESL facility.

Though it is not always easy to develop a direct statistical link between proactive reporting and the absolute number of Lost Time Injury (LTI) events, HAESL saw an 80% reduction in the severity of incidents in 2011, compared with the previous year.

('Severity' is based on a calculation of man-days lost per LTI)



HAESL Switches Off for Earth Hour

On 26 March, HAESL took part in the WWF Earth Hour 2011 – the annual global "Lights Out" event. The event promotes global sustainability, environmental awareness and aims to educate the general public regarding worldwide energy usage.

Earth Hour was first launched in 2007 in Sydney, Australia, when 2.2 million individuals and more than 2,000 businesses turned off non-essential lighting and air-conditioning for one hour to take a stand against climate change. By 2010, 128 countries and territories had joined the global display of climate action, with buildings and landmarks – including Hong Kong's Victoria Harbour skyline – going dark for one hour. This year, WWF–Hong Kong called on people to "Go beyond the hour, consume wisely".

HAESL's contribution began at noon on the day, with the Facility Management team checking outdoor and indoor ambient temperatures to ensure that most air conditioning could be switched off safely without any condensation risk. Later in the evening, the team and HAESL volunteers walked through the entire 52,000 sqm facility and turned off non-essential lighting, PC monitors and other IT equipment.

During the event, the HAESL Building Management System was utilised to log power consumption across the facility. The results showed that the actions taken during the designated hour reduced energy consumption at the facility by 37% – equivalent to a reduction in CO₂ emissions of 370kg. However, HAESL decided to "go beyond" and maintained reduced consumption on the day for four hours, contributing a total reduction in CO₂ emissions of 1.5 tonnes. **F**

HAECO Group Capabilities

AIRCRAFT TYPE	EASA		FAA		HKCAD / CAAC	
	BASE MAINTENANCE	LINE MAINTENANCE	BASE MAINTENANCE	LINE MAINTENANCE	BASE MAINTENANCE	LINE MAINTENANCE
A300 / A310		<u>+</u> +	+	+		<u>+</u> +
A319 / A320 / A321	<u>+</u> +	<u>+</u> +	<u>+</u> +	<u>+</u> +	<u>+</u> + +	<u>+</u> + +
A330	<u>+</u> +	<u>+</u> +	+	+	<u>+</u> +	<u>+</u> +
A340	<u>+</u> +	<u>+</u> +	+	<u>+</u>	<u>+</u> +	<u>+</u> +
B737	<u>+</u> <u>+</u>	<u>+</u> +	<u>+ + +</u>	<u>+ + +</u>	<u>+</u> +	<u>+ + +</u>
B737NG	+	+	<u>+</u> +	<u>+</u> +	<u>†</u> <u>†</u>	<u>+ + +</u>
B747	<u>+</u> +	<u>+</u> <u>+</u>				
B757	<u>+</u> +	<u>+</u> +	+	<u>+</u>	<u>+</u> +	<u>+</u> +
B767	<u>+</u> +	<u>+</u> <u>+</u>				
B777	+	<u>+</u> +	+	<u>+</u> +	<u>+</u> +	★★
MD11	Ŧ	<u>+</u> +	+	<u>+</u> +		Ŧ
CL-600						Ŧ
CRJ-200 / 700					<u>+</u>	<u>+</u>
ERJ170						Ŧ

Capabilities also include Line Maintenance services for A380

+ HAECO

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Hong Kong Aircraft Engineering Co. Ltd. Taikoo (Xiamen) Aircraft Engineering Co. Ltd. **†** STAECO

Taikoo (Shandong) Aircraft Engineering Co. Ltd. **†** SCTAECO

Taikoo Sichuan Aircraft Engineering Services Co. Ltd.

The Group also has approvals on aircraft, engines and components maintenance from the other regulatory authorities across Asia, Africa, the Pacific, the Caribbean and Australia, which include Australia CASA, Bahrain CAA, Bangladesh CAAB, Bernuda DCA, Canada TC, Indonesia DGCA, Israel CAAI, Japan JCAB, Jordan CARC, Kenya CAA, Korea CASA, Macao SAR AACM, Malaysia DCA, Mongolia CAA, Nepal CAA, Pakistan CAA, Papua New Guinea CAA, People's Republic of China CAAC, Qatar CAA, Republic of China CCAA, Singapore CAAS, South Africa SACAA, Sri Lanka CAA, The Fiji Islands CAAFI, The Philippines CAAP, Thailand DCA, Vietnam CAAV, United Arab Emirates GCAA.

ADDITIONAL CAPABILITIES

Airbus MRO Network

Cabin Reconfiguration / Modification

Winglet Modification

- B757 / 767

Freighter Conversion

- B737-300 / 400
- B747-200 / 300 / 400
- B757-200

Engine Overhaul

- Rolls-Royce Engines (RB211 & Trent)
- GE90 Engines

Landing Gear Overhaul

- B737 / 747 / 757 / 767 / 777

Workshop Composite Repair

- B737NG CFM56-7 T/R
- B777 Trent 800 T/R
- GE90 T/R
- B737 / 757 Flight Control

Wheels & Brakes

Repair/Overhaul

Tyre Retreating Services

Aircraft Parts Production & Manufacturing Approved under:

- HKAR-1 A2 Manufacturing Approval
- HKAR-21 POA
- Boeing BQMS
- BVQI (AS9100)
- Nadcap

Design & Engineering

Approved under:

- HKAR-1 E2 & E3 Design Organisation Approval
- HKAR-21 Design Organisation Approval
- SAR-21 Design Organisation Approval

Maintenance Training & Examination Approved under:

- HKAR-147
- CCAR-147
- EASA Part-147
- SAR-147
- Airbus MRO Maintenance Training Network
- Hong Kong Civil Aviation Department Authorised Aircraft Maintenance Licence Examination Centre

Aircraft Painting

Non Destructive Testing (NDT)

Hydrostatic Test Facility Approved by: - U.S.A. - DOT

Calibration Laboratory (CALMET)

- HOKLAS accredited laboratory; Mutual Recognition Arrangement through APLAC on traceability of standards
- CNAS accredited laboratory

