Australian Licenced Aircraft Engineers Association

25 Stoney Creek Rd.

BEXLEY NSW 2207

Fax: (02) 9554 9644

Ph: (02) 9554 9399

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Committee Secretary

Senate Standing Committees

Rural and Regional Affairs and Transport Parliament House

Submission for consideration by the Committee regarding Qantas

Preamble

The Australian Licenced Aircraft Engineers Association ('ALAEA') represents certifying Licenced Aircraft Maintenance Engineers ('LAMES') throughout the Australian domestic, International, regional and General Aviation industries.

About the ALAEA

The ALAEA is an organisation founded in 1960 to advance the professional, technical and industrial interests of Aircraft Maintenance Engineers who are licensed by the Civil Aviation Safety Authority (CASA) to certify for work performed on aircraft within Australia.

Currently the ALAEA has 3000 financial members employed in all sectors of the industry - in the major airlines as well as in regional operations and the general aviation sector. The motto of the ALAEA is:

"To undertake, supervise and certify for the safety of all who fly".

The ALAEA would be pleased to appear before the Committee to answer any questions the Committee might have regarding this Submission and to provide further evidence and expansion if requested.

Executive Summary

This submission is made to address questions being considered by the the Rural and Regional Affairs and Transport References Committee for inquiry and report by 27 March 2014.

The Committee is considering what initiatives can be taken by Government to ensure Qantas remains a strong national carrier supporting aviation jobs in Australia, including:

- a debt guarantee;
- an equity stake; and
- other forms of support consistent with wider policy settings.

That, in conducting the inquiry, the committee should consider:

- any national security, skills, marketing, tourism, emergency assistance or other benefits provided by a majority Australian-owned Qantas;
- the level and forms of government support received by other international airlines operating to and from Australia;
- the ownership structures of other international airlines operating to and from Australia;
- the potential impact on Australian jobs arising from the Government's plan to repeal Part 3 of the Qantas Sale Act 1992; and
- any related matter.

This submission will primarily address two concerns followed by a recommended action by the ALAEA in line with the terms of reference of the enquiry. The first area we will address will be the effects of changes to the *Qantas Sale Act 1992* (Cth)('*Qantas Sale Act*') and other matters under consideration with regard to offshore maintenance of Australian Aircraft. The second will be the wider ramifications of changes to the ownership structure of our national carrier.

Part One - Maintenance

Qantas undertakes two forms of maintenance on aircraft to meet regulatory requirements; these are often termed "Heavy Maintenance" and "Line Maintenance". Heavy Maintenance is usually comprised of checks termed "C" checks and "D" checks, which are scheduled by planning departments in line with aircraft manufacturers' guidelines to take place at intervals of approximately three years.

Heavy Maintenance checks are generally major events consisting of extensive structural inspections with aircraft stripped of seats and floorboards internally to inspect and replace components not normally visible or accessible during shorter routine maintenance. Line Maintenance occurs on a daily basis, as aircraft come and go, incvolving lighter checks carried out during overnight servicing. The bulk of this submission will deal with Heavy Maintenance.

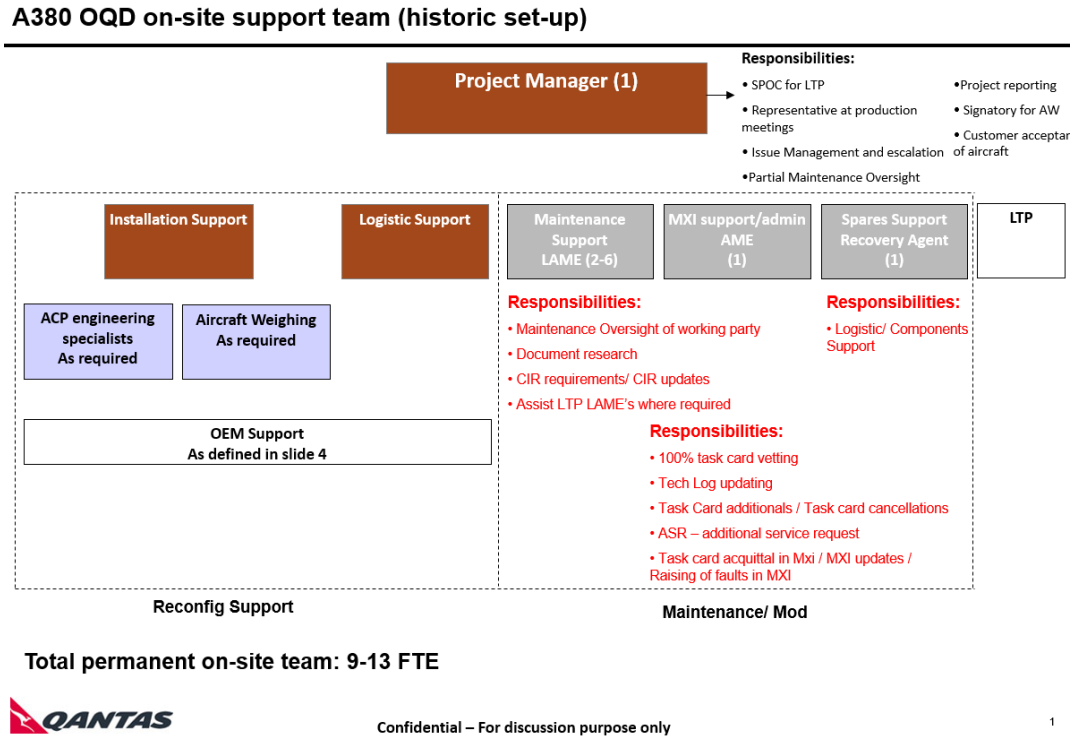
In 2006 Qantas operated four Heavy Maintenance facilities in Australia. Sydney was designated as the main port to undertake work on 747 aircraft with Avalon used as an overflow facility also working predominantly on 747s. Melbourne was assigned all 737 work with Brisbane carrying out the checks on 767 aircraft.

In mid-2006 Qantas closed the Sydney facility, Melbourne was closed in 2012 and Avalon is due to shut on 28th March 2014. Qantas will be left with only one facility in Australia capable of undertaking work on all Qantas aircraft. Because the work on the current fleet cannot be met solely by this facility, work is being outsourced to offshore facilities in Asia to meet the work demand. The A380 fleet is maintained in Manila and the 747 work vacated by the Avalon closure will initially be carried out by the Hong Kong Aircraft Engineering Company ("HAECO") in Hong Kong.

At times over the last decade there have been a number of aircraft that weren't able to have their Heavy Maintenance requirements carried out in Australia, due to conflicting dates for aircraft checks. These aircraft "slipped" offshore for one-off checks.

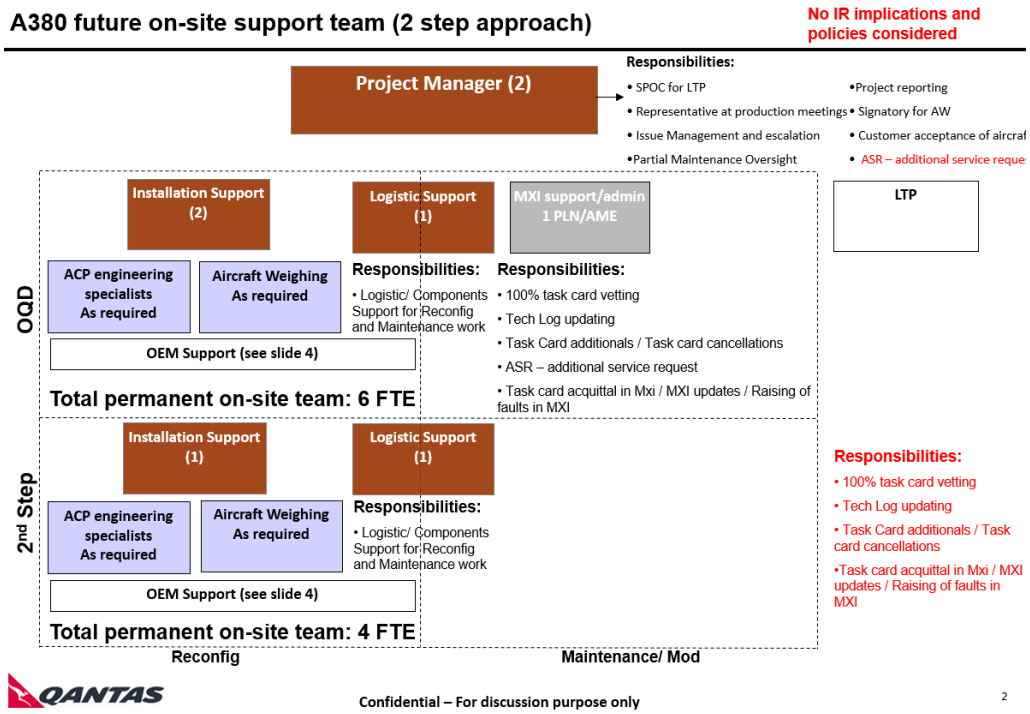
Up until 2012 Qantas LAMEs would accompany an aircraft that was being maintained offshore in a supervisory role and to ensure critical stages of inspections were carried out correctly by the contracted maintenance providers. Qantas ceased the practice of sending LAMEs to accompany all offshored aircraft in around 2012 and now send smaller support teams that usually do not include licensed staff.

The first image below is from a Qantas presentation showing the former state with 2-6 LAMEs accompanying an offshore aircraft –



Both the 1st and 2nd steps in the future state have support teams which now include no LAMEs as part of the oversight team. The maintenance oversight of the working party previously conducted by LAMEs has reduced to partial maintenance oversight by a Project Manager who, in most cases, is neither a licensed nor unlicensed Aircraft Maintenance Engineer ("AME").

We suspect these changes were initiated to cut costs and prevent Qantas LAMEs highlighting poor maintenance to continue and reporting errors to the appropriate authorities and the ALAEA.



Between 2006 and 2011 Qantas LAMEs would regularly report to the ALAEA that maintenance in some overseas facilities was substandard and/or not being carried out in accordance with the applicable aircraft maintenance instructions. Often when an aircraft returned to Australia after offshore maintenance was carried out major maintenance errors were discovered, documented and occasionally forwarded to the ALAEA. In this submission we will present some of that documented evidence. We will not submit any matter that is not able to be fully substantiated. We have serious and genuine reservations for the long-term health of the Qantas fleet as the reduction in oversight by Qantas of outsourced maintenance may have resulted in undetected errors laying dormant for long periods before they become a problem.

We would like to declare upfront that the training required to become a capable and qualified LAME in each country is similar, and wages tend also to be within the same range. The major difference between Australian facilities and those overseas is the number of LAMES that circulate within a maintenance workforce compared to those persons working on aircraft who are not licensed. There is no set qualification standard required for non-licensed staff; however unlicensed Australian AMES have generally completed a minimum aircraft trade equivalent apprenticeship. The amount of licensed staff compared to unlicensed is often referred to as the LAME/AME ratio; e.g. a facility with a LAME/AME ratio of 1 to 4 would have one LAME carrying out his or her own work whilst supervising and certifying for the work of four other persons. The traditional ratio in Australia is 1 to 2, one LAME certifying for himself or herself and two other persons. We will refer to these ratios throughout the submission

Singapore

Qantas have used three facilities in Singapore. The Singapore Airlines Engineering Company ("SIAEC") and two facilities owned by Singapore Technologies Aerospace - ST Aerospace Services Company ("SASCO") and ST Aerospace Engineering ("ST AERO"). The quality from each facility is similar, so we submit it is not unreasonable to say that they are typical benchmark examples of Singapore's standards. The LAME/AME ratio at these facilities as previously reported by the ALAEA to a Senate enquiry in 2007 was 1 to 11, one LAME certifying and for himself or herself and eleven other persons. We consider these levels of licensed supervision to be inadequate and dangerous. Some noted and documented errors that have occurred on Qantas aircraft in Singapore facilities include –

In 2006 due to the closure of Sydney Heavy Maintenance, two Qantas 747-400 aircraft, registered VH-OJO and VH-OJQ were sent to SIAEC for D check maintenance. During these checks Qantas sent a Quality auditor to observe the maintenance activities over several short periods.

- A report was made by the Qantas Quality Assurance department regarding aircraft VH-OJO during the May-June period of 2006. Issues noted during this audit showed that contracted engineers were unable to access the appropriate and necessary manuals to conduct maintenance, mandatory training requirements had not been met, lighting to undertake inspections was insufficient, tooling used was overdue for calibration, access to provide specific part numbers for Qantas spares was inaccessible and unapproved/certified parts had been fitted to the aircraft. A copy of the report is attached as appendix 1.

- A subsequent report by Qantas Quality Assurance department was made regarding aircraft VH-OJQ August-September 2006. During this maintenance check there were instances where Singapore LAMEs had signed to say that work was completed when it was not, work had been carried out contrary to maintenance instructions and many parts had been fitted without recording part and serial numbers. In addition one LAME had certified that he had completed 52 hours' worth of inspections during one 8 hour shift, maintenance was carried out and never recorded on paperwork, SIAEC Engineers had carried out inspections noting no defects in the area of inspection but upon re-inspection by Qantas Engineers numerous defects were noted and subsequently repaired (including numerous worn and damaged flight control cables). Sharp metal scrapers were being used to remove sealant from aircraft joints. Sharp metal shavings had been left covering several wiring looms.

Qantas Quality Assurance questioned the continued use of the supplier but we note that the supplier was contracted again by Qantas after this date. The ALAEA is prohibited from submitting the audit report. It was considered by Senior Member Taylor of the Administrative Appeals Tribunal in Freedom of Information proceedings *Re Vasta and Mckinnon v Civil Aviation Safety Authority* [2010] AATA 499/500. Noting the reports critical purpose of internally evaluating safety related problems, or potential problems, Senior Member Taylor allowed access to the parties to the proceedings but prohibited public disclosure or publication of the audit report. The orders of Senior Member Taylor are attached as appendix 2.

In the same period Australia's Civil Aviation Safety Authority ("CASA") was also carrying out an assessment of the SIAEC facility for the purposes of granting an Australian maintenance approval certificate. However CASA were either unable or unwilling to assess the work actually being performed on an Australian aircraft whilst they were onsite. CASA did not speak with the Qantas auditors or

maintenance staff. CASA determined that SIAEC "ticked all of the required boxes" and subsequently issued them with a Certificate of Approval under reg 30 of *the Civil Aviation Regulations* 1988 (Cth). CASA have since documented that surveillance of SIAEC is difficult and hampered by their inspector's low security status and that they have to be constantly escorted during their audits. This prevents them from having the extensive access to the hangar and customer representative teams during heavy maintenance checks. A copy of this audit is attached as appendix 3. They have also given statements in the Administrative Appeals Tribunal (AAT) [1] that they cannot provide the same level of oversight to offshore facilities as they do to Australian facilities.

In July 2013 a Technical Agreement[2] was reached between CASA and the Singapore CAAS which grants automatic approval of maintenance facilities in Singapore that have a Singaporean approval, meaning that CASA is no longer required to audit maintenance organisations there that wish to maintain Australian aircraft.

In 2007 747 aircraft VH-OJQ was found in Australia to have a faulty floor path emergency lighting system. Upon inspection the wiring was found to be cut (most likely by carpet layers). However when the wiring was removed for repair it was discovered that previously-undocumented repairs had been carried out where the broken wires had been held together and stapled with a household stapler with the staple now being used as the electrical conduit. It was also found that a piece of wire off-cut had been used as a substitute in a connector for the lighting system. A wider inspection found that the "staple repair" had been carried out in over a dozen locations within that aircraft.

Qantas ordered a wider fleet inspection and a similar number of these unapproved staple wiring repairs were found on VH-OJO that had also been maintained in Singapore. SIAEC have denied doing any work to the escape lighting system, however the removal and installation of the cables from the aircraft floorboards is a basic requirement during D check maintenance and these wires often get damaged at this time. It is impossible to accomplish D check inspections with the wires in place. It is highly unusual for no escape path wiring to have been replaced during the D check maintenance as claimed by SIAEC. No cut and stapled wires were found on aircraft maintained in Australia.

Between November 2009 and September 2010 four 737 Heavy maintenance checks were carried out by ST Aero in Singapore. During these checks the small Qantas teams of Licenced engineers that accompanied the aircraft kept records of aircraft defects and checks that had not been discovered or rectified by the outsourced maintenance organisation. The job of these teams was not to inspect the entire aircraft, but to provide a level of quality assurance to the process and assist in a technical capacity.

The team that accompanied the first Qantas 737 to be maintained by ST Aero recorded no less than 600 defects found after the inspections had been carried out by local staff. Records of these findings are available at the ALAEA office but are too large to be included as appendixes. These defects included –

- Multiple cases of corrosion on the wings and other structure
- A cracked floorbeam
- Multiple cracks in structure

[1] Vasta and McKinnon V CASA 2008/261 and 2008/2385

[2] Advisory Circular AC 145-5(0) JULY 2013 Implementation Procedures For The Technical Arrangement On Aviation Maintenance Between CASA And CAAS

- Damaged fasteners
- Ailerons out of adjustment
- Air-conditioning/pressurisation system faults
- Numerous wiring connectors loose and incorrectly lockwired
- Damaged wiring
- Numerous instances of wiring chaffing and contacting structures
- Numerous wiring clamps loose or damaged
- Radio antennae corroded
- The aircrafts cabin items, paint finish and cleanliness generally in poor condition

Additionally the team noted -

- Specialised tooling required to complete work on 737s not available, including balance weights and aircraft jacks
- At times there was no avionic LAMEs available to work on the aircraft
- Mechanical AMEs were working unsupervised
- Aircraft were being spray painted in the adjacent bay and the overspray and chemical fumes were overpowering. The Qantas staff exited the hangar but the local staff continued to work.
- Old and new parts were being stored together and other airlines parts were also being stored in the same hangar

Following these checks it is normal for the airline to monitor the aircraft for 100 flights after the checks. For two of these four aircraft it was noted that 105 defects had occurred across 200 flights. Approximately 50 of these recorded defects were either confirmed or possibly caused as a result of errors or omissions during the Heavy Maintenance checks. Some of these aircraft defects include –

- Warning horns sounding when aircraft are taking off
- Doors being difficult to close
- Pressurisation leaks through windows
- Aircraft steering to the left during taxi
- Flight controls out of adjustment
- Engine indicators faulty
- Aircraft pressurisation controller faulty
- Passenger doors out of adjustment
- Grey water drains blocked and leaking
- HF Radio transceiver system defective
- Hydraulic leaks
- Autopilot “erratic”
- Engine Fire Detection System faults
- Engine auto throttle system defective
- Electrical Generator low in oil
- Electrical Generator oil leaking
- Engine Thrust reverser failed to operate
- Flight deck security door opened by itself during taxi

In November 2008 a Qantas 767 underwent a heavy maintenance check (C1, C2 and C4) at **SASCO**. In January 2009 during an aircraft transit check a Qantas engineer reports that a trailing edge flap track fairing was hanging down slightly. On inspection the engineer discovers that attaching stay rod for the

fairing was hanging loose inside the fairing. The attach bolt for the rod was found installed in the fairing and tightened up. This bolt should have passed through the rod eye end.

On 7 February 2009 the pilots reported a Leading Edge flap asymmetry problem (this is where the flaps on each wing do not travel up and down in unison, extremely important for maintaining aircraft control). On inspection of the flap drive system along each wing it was discovered multiple flap drive torque tubes had screws missing from the joining couplings and the remaining screws had not been safety lock wired. Further investigation revealed that the flap drive torque tubes that join the two wings systems together had separated. The screws that were supposed to hold this coupling securely were found on the floor area of the cargo hold.

As these maintenance tasks involved flight critical systems they are required to have "independent inspections" and are legally required to be certified by two independent licensed engineers to ensure correct installation. This obviously did not happen.

Hong Kong

Qantas have regularly engaged the services of HAECO in Hong Kong who are a Swire Group company (the Swire Group is major Cathay Pacific shareholder). The LAME/AME ratio reported to the ALAEA by members who have been seconded to the facility are 1 to 8, one LAME certifying and for himself/herself and eight other persons. We consider these levels of licensed supervision to be inadequate and dangerous.

The ALAEA are not in possession of Qantas Quality Assurance reports from Hong Kong however we have noted several major maintenance issues that arose after maintenance had been completed by the HAECO maintenance teams.

In October 2008 Qantas 747-400 VH-OJG underwent a "D" check at the facility. Seven weeks after the maintenance was completed, Qantas Engineers replacing a part in the wing strut observed a discrepancy with the mounting of an aircraft engine. The other engines of the aircraft were subsequently checked and noted to have the similar mounting issue as found on the initial engine.

The Rolls Royce engines on a 747 are secured to the strut underneath the wing by 8 mount bolts. The bolts have a curved underside to add strength and require specially designed washers that have a countersunk shape to mate with the underside of the bolt. A number of the mount bolts on 3 engines were found to have the washers installed upside down. Additionally some of the mount bolts were found with the required number of flat washers under the nuts missing as well. The effect of fitting the washers upside down is two-fold. In the first instance because the washer contacts the curve on the underside of the bolt it prevents the bolt from sitting flat and prevents the bolt from being tightened correctly. Secondly the washer is now in constant contact with the strength critical curved area under the bolt head and is causes a stress area which could cause the bolt to fail. The effect of not using the correct number or type of flat washers is that it essentially makes the bolts longer than they should be so that when they are tightened the nut tightens onto the shank of the bolt and does not clamp the engine to the engine mount properly.

Three of the four engines were not held on properly. **If any one of these engines had fallen off during flight a most likely outcome would have been the loss of the aircraft**. The ALAEA noted that Qantas had not filed official reports with CASA. The ALAEA reported this through the Australian Transport Safety Bureau ("ATSB") confidential reporting system. The ATSB communicated with CASA and Qantas

who claimed that the matter was not an airworthiness issue and understated the importance of the engine mount bolts and the washer installation. In our view every aircraft operating worldwide that had had engines fitted at HAECO should have immediately inspected the engine mounts for similar incorrect installations. Copies of the correspondence related to the engine mount issue are attached as appendix 4.

Yet another issue involved the maintenance of 747 aircraft VH-EBX. This aircraft had been maintained in HAECO in June 2008. At the completion of the check the local contracted engineers were unable to fix a defect in the aircraft flap system. Specifically the control handle for flaps within the cockpit did not correspond with the flight control surface on the wing and was difficult to move. This is attached as appendix 5.

After all attempts to repair the defect had been exhausted, a special concession was given to Qantas to fly the aircraft directly to Avalon in Victoria, without passengers where the mismatch between flap handle and flap position was duly rectified.

On the 28th of March Qantas will be without any facility in Australia to undertake 747 Heavy Maintenance. HAECO has been selected to undertake the next two aircraft checks and it is expected to bid for all subsequent Qantas 747 Heavy Maintenance.

Manila

Over the years Qantas have sent various aircraft to the Lufthansa Tecknik Philippines ("LTP") facility in Manila and it is now the sole facility which undertakes Heavy Maintenance on Qantas A380 aircraft. Although the facility carries the respect association with Lufthansa we note that the Lufthansa airline is not using the facility to maintain their own aircraft. The LAME/AME ratio at this facility as previously reported by the ALAEA to a Senate enquiry in 2007 was 1 to 22, one LAME certifying and for himself/herself and twenty-two other persons. We consider these levels of licenced supervision to be inadequate and dangerous.

A widely reported and notable error attributable to the LTP Manila facility was on aircraft VH EBA. After arrival home Qantas Engineers noted an issue with the Emergency Oxygen supply for the flight crew. In the event of a rapid aircraft decompression Pilots are required to don oxygen masks to ensure they can breathe at the high altitude and safely lower the aircraft below 10,000 feet. Without this oxygen above 10,000 feet a person will usually black out in under a minute.

It was discovered that both bottles that supply this oxygen had the taps closed and wire attached to lock the bottles in the closed position. If a cruise altitude emergency situation involving a rapid decompression occurred on this aircraft before discovery of the maintenance error the aircraft would most likely have been lost. A copy of a relevant media report is attached as appendix 6.

Over the period from March 2007 to December 2009, twenty-one Heavy Maintenance checks were carried out on Qantas aircraft in Manila. We have obtained a Qantas report from members regarding the number of maintenance card discrepancies from the Manila facility across the 21 checks. The Qantas table of these discrepancies appears below.

QANTAS HEAVY MAINTENANCE DOCK PLANNING OUTSOURCED A/C
QUALITY CONTROL STATISTICS

EMAIL TO MIKE O'DONNELL-MOD01 CC:ERNIE CIRIGNANO-EC101

AIRCRAFT DETAILS					NUMBER OF DISCREPANCIES					% OF DISCREPANCIES	
A/C REGO	CHECK TYPE	LOCATION	CHECK COMPLETED ON DATE	TOTAL TASK CARDS	TASK CARD CERTIFICATION	TASK CARD WRITE OFF / ATTACH DOCUMENTATION	TASK CARD PLANNING INFO.	DOC'S & PROCS TRAINING	COMMENTS - MRO / TEAM LEADER	TOTAL DISCREP / TOTAL CARDS * 100	ACTION TAKEN BY PLANNER DURING THE CHECK
EBA	C1	MNL	10/03/2007	1440	113	98	0			14.65%	
EBB	C1	MNL	30/03/2007	1323	69	46	0			8.69%	
QPH	C01	MNL	31/03/2007	794	23	31	0			6.80%	
QPI	C01	MNL	8/04/2007	1268	20	37	0			4.50%	
QPE	C01	MNL	17/04/2007	1107	1	49	0			4.52%	
QPF	C01	MNL	28/04/2007	1136	39	66	0			9.24%	
QPG	C01	MNL	8/05/2007	1101	16	81	0			8.81%	
QPJ	C01	MNL	14/05/2007	786	14	21	0			4.45%	
EBD	C1	MNL	16/07/2007	1084	115	33	0			13.65%	
EBC	C1	MNL	31/07/2007	1175	19	205	0			19.06%	
QPB	C1	MNL	1/03/2008	1495	77	51	20	YES/8		9.90%	
QPA	C1	MNL	11/03/2008	1404	38	12	2	YES/8		3.70%	
EBG	C1	MNL	16/06/2009	722	57	57	2	YES		16.07%	
EBH	C1	MNL	23/06/2009	707	12	33	16	prior to ebg c1		8.63%	
QPA	C4	MNL	25/07/2009	2696	44	65	5	prior to ebg c1		4.23%	
EBI	C1	MNL	1/08/2009	793	14	19	3	prior to ebg c1		4.54%	
QPB	C4	MNL	27/08/2009	2746	38	73	18	prior to ebg c1		4.70%	
QPC	C4	MNL	23/09/2009	2640	75	80	15			6.44%	
QPD	C4	MNL	20/10/2009	2539	70	72	9	prior to ebg c1		5.95%	Brief LTP Planner of the Discrepancy Report
QPE	C4	MNL	13/11/2009	2623	18	30	19			2.55%	
EBK	C1	MNL	8/12/2009	597	12	12	4			4.69%	Brief LTP Planner of the Discrepancy Report
QPF	C4	MNL	20/12/2009							#DIV/0!	

KEY --	TASK CARD CERTIFICATION	TASK CARD WRITE OFF / ATTACH DOCUMENTATION	TASK CARD PLANNING INFO.	MPAR RAISED
	All cards with any certification defects.	Incorrect write off of card per SRM / MM etc.	Incorrect manhours	Number of MPAR's raised.
	Card not signed correctly.	PCR, EI result sheet, Serviceable label, EA recall etc.	Planning data not filled in	
	No / illegible licence number.	Any attachment documents not per PPM.	Task card not filled in properly	

Maintenance card errors include issues such as persons entering information erroneously, work being certified by persons not licensed to do so, parts and tooling not being recorded, clearance inspections not being carried out and reasons for work not being recorded.

Across the twenty-one checks over this period the number of discrepancies noted on an individual aircrafts task cards was at least 3.7% of all cards signed. The worst aircraft contained discrepancies on 19% of all paperwork for that aircraft. All other aircraft contained discrepancies between the above two values.

Kuala Lumpur

In 1998 Qantas purchased two aircraft from Malaysian Airlines, VH-OEC and VH-OED. Prior to purchase both had been maintained in the Malaysian facility ("MAS"). In 2003 on subsequent Heavy Maintenance checks in Sydney, an Engineer inspecting the cabin of the stripped aircraft noticed an unusually long dark mark on the inside of the aircraft skin, and decided to investigate further. That mark turned out to be one of the largest structural cracks in the history of the Boeing 747. A newspaper report of this event is attached as appendix 7. After extensive investigation it was found that both ex Malaysian aircraft had "score" marks all around the aircraft lap joints where sealant had been removed by sharp unapproved metal scraping tools. The damage was so extensive that both aircraft were grounded for over a month to facilitate repairs. The aircraft had been flying in Qantas livery hiding hundreds of these silent structural time bombs for approximately five years.

A 1.76m crack of a similar nature in the skin of a China Airlines 747 was cited as the cause of the aircraft breaking up in mid-air in 2002. In that incident all 209 passengers and 16 crew were killed shortly after take-off from Taipei.

The ALAEA were contacted this week by a member concerned about his experiences in Malaysia in 2007 whilst working in the facility on contract. He was well aware (as all Qantas Engineers are) of the

dangerous practice of using sharp, unapproved tools and thought the problem was well known to all within the industry. He was surprised when a Malaysian Quality Assurance team did a snap inspection on tool boxes to see whether any Engineers were in possession of these dangerous unapproved tools (which are used to reduce the time it normally takes to remove old sealant from aircraft skin surfaces and production joints). After this inspection three Engineers were sacked immediately for holding these tools. This occurred in 2007, 5 years after the Air China accident and 4 years after the damage had been found on Qantas aircraft previously serviced in Malaysia.

In June 2008 MAS were assigned the task of carrying out a Heavy Maintenance check on Qantas 737 VH-TJU. ALAEA members who accompanied the aircraft recorded at least 95 errors in the way in which the work was carried out. Some of these errors included –

- Extensive corrosion on the fuselage, doors and wings
- Cracked components and structure
- Lightning strike damage
- Flight Control cables rusty
- Worn flight control components
- Wiring damage
- Engine cowl delamination
- Electrical looms contaminated with metal shavings
- Electronic equipment connectors not protected
- Aileron cable system missing parts and incorrectly installed
- Landing gear cables not safety lock wired
- Drain system leaks preventing aircraft pressurisation
- Air-conditioning electrical connectors left off
- Work signed off without being done

As the errors were occurring they were all logged by the Qantas Engineers present. At the completion of the check, the log of errors was found in the bin. Our members retrieved the list of maintenance errors and resubmitted it to Qantas with a copy forwarded to the ALAEA.

After the aircraft landed in Melbourne following the check approximately 50 faults with the aircraft had been noted by the crew who flew the aircraft home or by maintenance staff in Line Maintenance during routine inspections. The aircraft was grounded for a week as repairs were made. A fault that stands out is a metal galley bench top upon which flight attendants prepare meal services was electrified, causing several shocks to people that touched it. This fault was caused by the failure of MAS maintenance personnel to refit the galley bonding cables when the galley was refitted.

Scribe Line Inspections Malaysia and Singapore

Following the discovery of the fuselage cracks on the Qantas aircraft and the China Airlines disaster the United States Federal Aviation Administration (“FAA”) issued airworthiness directives (“Ads”) to inspect the skin joints on Boeing airliners. Due to the difficulty in assessing damage caused by sharp scrapers and scribe markers in the narrow spaces between skin panels Boeing have approved a special laser measuring device (developed in Australia) as one of, if not the only, tool that can provide a measurement of the damage accurate enough to allow an aircraft to return to service with no repeat inspections required.

Malaysian Airlines and ST AERO both use this tool to inspect and release to service 737 Aircraft. The users of the device are required to undergo training from the manufacturer to ensure they are competent. Incorrect use of the device could result in aircraft being returned to service that should be repaired before flight. The ALAEA was presented with evidence, which was passed onto both CASA and the European Aviation Safety Agency ("EASA") regarding the use of the device in MAS and ST AERO. The concern with MAS was that the operators of the device had either not been trained or they required extensive retraining as the measurement results taken during an aircraft inspection were obviously very inaccurate to a trained eye. It also appeared evident that incorrect surface preparation was obscuring the damage leading inaccurate measurements.

The situation with ST AERO appeared to be more sinister. It was alleged that the device had suffered damage consistent with being dropped and that this had seriously affected the accuracy of the device (parts of the device had been stuck back together with masking tape). The level of inaccuracy was evident by a review of the calibration images used at the commencement of an aircraft inspection. The machine stores these images and measurements and it could be seen that the device was not within its calibration parameters when the inspection commenced. The machine was used for two days to inspect an aircraft. When the machine was sent for repair immediately after the inspections were complete, it was discovered that the calibrating device being used had also been damaged and the machine was further out of calibration than was evident prior to the inspections being carried out. The measurements taken with the damaged device did not reveal any areas of the aircraft that required immediate repair; however, an analysis of the measurements taken with the error applied to give a true reading revealed that there were multiple areas on the aircraft that may have required repair before further flight.

Both EASA and CASA have completed their investigations into the allegations with CASA's response being that no aircraft was returned to service without being inspected. EASA will not provide the results of their inspection except to state that "corrective actions have been taken".

EASA seemed quite concerned and requested further information and they were duly supplied with more than 100 images and spreadsheet outlining the concerns. CASA only received a limited amount of 8 images and a report. They requested a meeting be convened with the ALAEA and CASA Technical specialists to explore the issues raised, however they made no further contact with us for over 3 months until they were contacted again. They verbally informed us that they did not need to meet. The ALAEA made a request under Freedom of Information to determine exactly what the CASA investigation involved and its findings, however the release of those documents is being challenged by ST AERO and may never be released. Copies of relevant documents are attached as appendix 8.

We claim that these mistakes and the red tape necessary for corrective action to be taken may have led to aircraft flying today that were serviced in Singapore and Malaysia and released for flight with undetected cracks capable of causing an aircraft to be lost.

Part Two – Qantas Strategy

The ALAEA has for a long time suggested that the Qantas Group have been either deliberately or negligently mismanaged by the Board and senior managers of the company. Because the measure of mismanagement or otherwise of an airline is subjective we will present matters based on subjects and materials that have been made available to our Association.

Firstly we will consider that the management team and Board over a period of the last six years has made mistakes and have not deliberately placed Qantas in the position they are in today. This notion is possible as the Qantas Board does not contain any person who has worked or been promoted from an operational aviation profession (Pilot, Engineer, Flight Attendant, Baggage handler, customer services, etc). The Board consists of the following individuals with the following qualifications or background:

- Leigh Clifford (Chairman) - Miner
- Alan Joyce (CEO) – Mathematician
- Maxine Brenner – Lawyer
- Richard Goodmanson – Civil Engineering
- Jaqueline Hey – Marketing, Banking
- Garry Hounsell - Accountant
- William Meaney - Pharmaceuticals , Records management
- Paul Rayner – Tobacco
- Barbara Ward –Political Advisor, Economics

Whilst all Board members are highly qualified in their fields, they lack the Aviation background of a person who was raised in the industry and who could see significant errors from a different perspective before they arise. An example of this is the commencement of flights in 2011 direct between Sydney and Dallas with 747 aircraft. Prevailing headwinds on the return sector regularly mean that the aircraft does not have enough range to complete the sector. This results in unscheduled drop ins to Fiji and Brisbane for refuelling. Often prior to flying the return sector, it is known that the range is insufficient and weight limitations are applied such as removal of cargo, removal of passenger bags or reducing the number of passengers the aircraft can carry.

We submit, however, that the most likely cause of the current Qantas woes is a series of deliberate actions and decisions made by key persons at the airline. We suggest that evidence will show that the Qantas International business has been run down by management to support a case that restrictions contained within the *Qantas Sale Act* should be lifted and to obtain grants or subsidies from the Australian Government.

Qantas International

In 2008 Qantas made a record profit over $1.4 billion at a time of high fuel prices under the leadership of Geoff Dixon. From the time of the announcement of Alan Joyce as Qantas CEO, Qantas has significantly reduced services on its highly profitable International segment and increased the growth of its budget arm Jetstar.

Some of the flights removed by Qantas include –

- Daily London service via Hong Kong dropped just prior to the London summer and Olympic games in 2012. The landing slots were taken up by Oneworld alliance partner British Airways.
- Frankfurt daily service dropped in 2013 when the previous twelve months had seen extremely sustainable aircraft loads averaging over 85% of all seats being sold. The flights and landing slots have been taken up by Emirates.
- Reducing Qantas services to Honolulu with those flights transferring to Jetstar.
- Ceasing one stop flights to Europe from Perth, Adelaide and Brisbane with Emirates immediately increasing services.

On former Qantas International services that have been discontinued, aircraft load factors for the prior 12 months had been well above the International Sectors weighted average as presented in annual reports for the same period. Qantas may say that yield was down on those sectors (yield essentially reflects the price they can sell tickets for on the sector) however yield is directly related to load factor. If an aircraft is approaching full, the remaining tickets can be sold at a premium. We are concerned that Qantas has discontinued services that operated with near full load factors, particularly the flights to Frankfurt and London including the former Perth, Adelaide and Brisbane services.

Many other services that were previously flown by Qantas have been transferred to Jetstar. These include flights to Indonesia, Honolulu, Japan and Thailand. Jetstar are a budget carrier, airfares are cheaper and less revenue is forthcoming from sales of Jetstar tickets compared to a sale on the same sector for a Qantas service. We are concerned that Qantas has lost revenue because of the transfer of many international services to Jetstar.

Advertising

We will assume that Members of the Senate own televisions as do ALAEA officials. In the past five years the advertising spectrum seems to have been flooded with promotion of Jetstar and their products. In comparison advertising of the Qantas product seems to have been sparse and somewhat underwhelming.

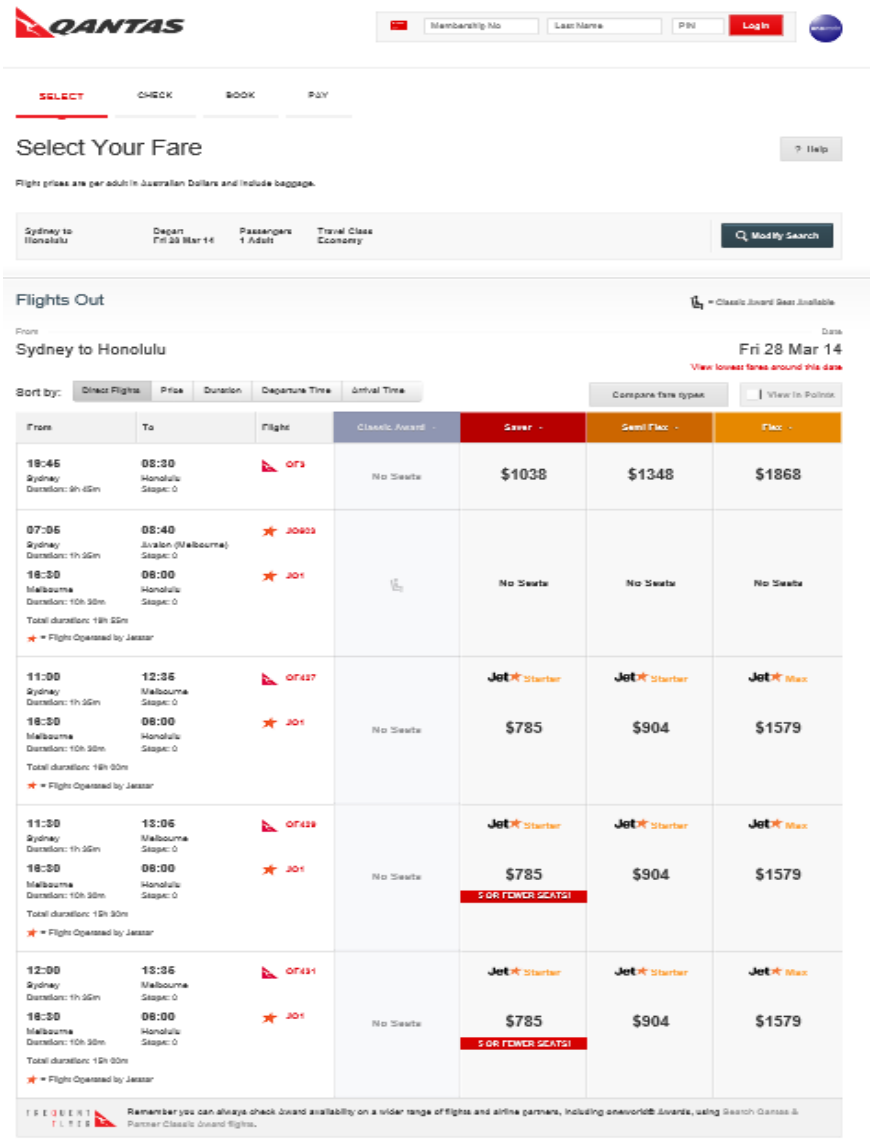
Of more concern is the way the airlines advertise and sell tickets online (now the most common way to buy air travel). When a customer goes to the Jetstar website and selects an origin and destination, Jetstar flights are displayed along with the prices tickets are available. There is no option, display or advertising of Qantas flights.

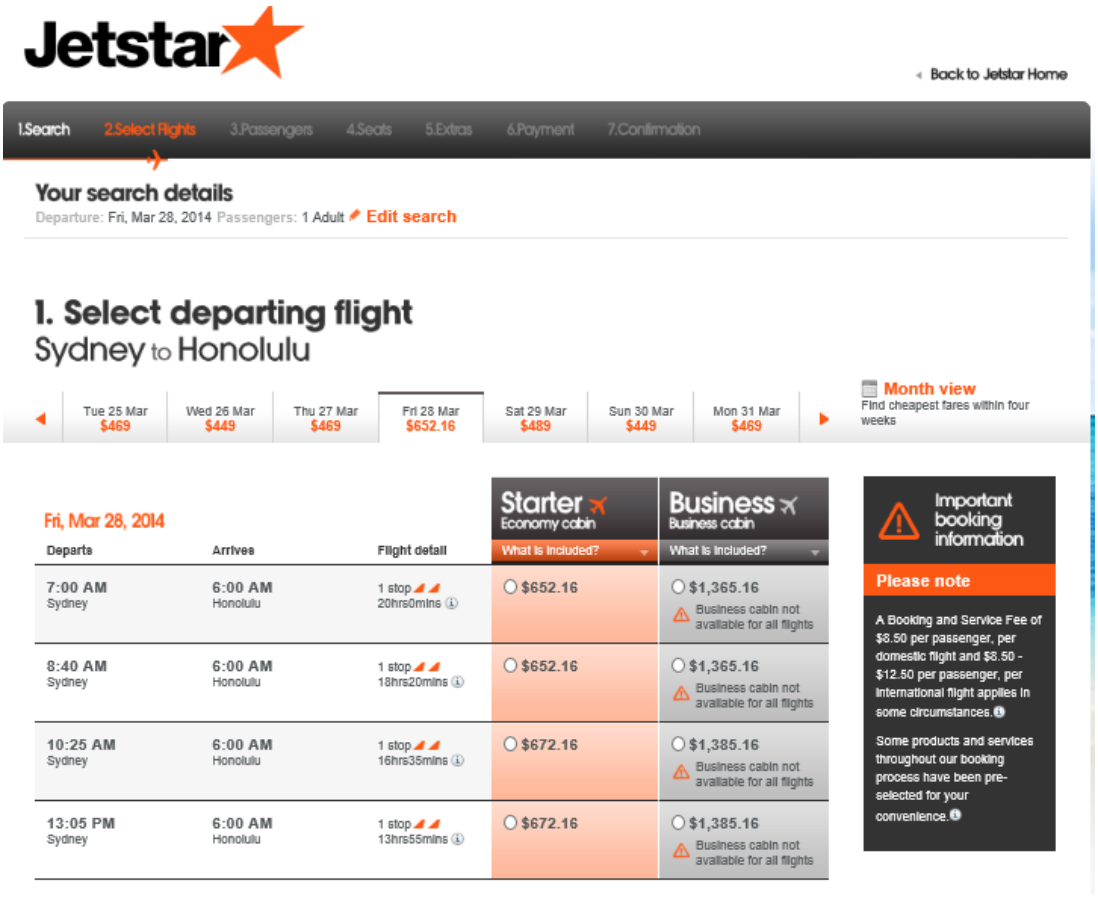
When a customer selects the same search criteria in the Qantas website, Qantas available flights along with prices are displayed however also prominently appearing in the list of tickets available are a list of Jetstar flight options to the same destination. In nearly all cases the Jetstar seat offers that are being displayed by Qantas advertise airfares directly below Qantas flights at cheaper rates. If a person decides to select the Jetstar flight they are taking business away from Qantas.

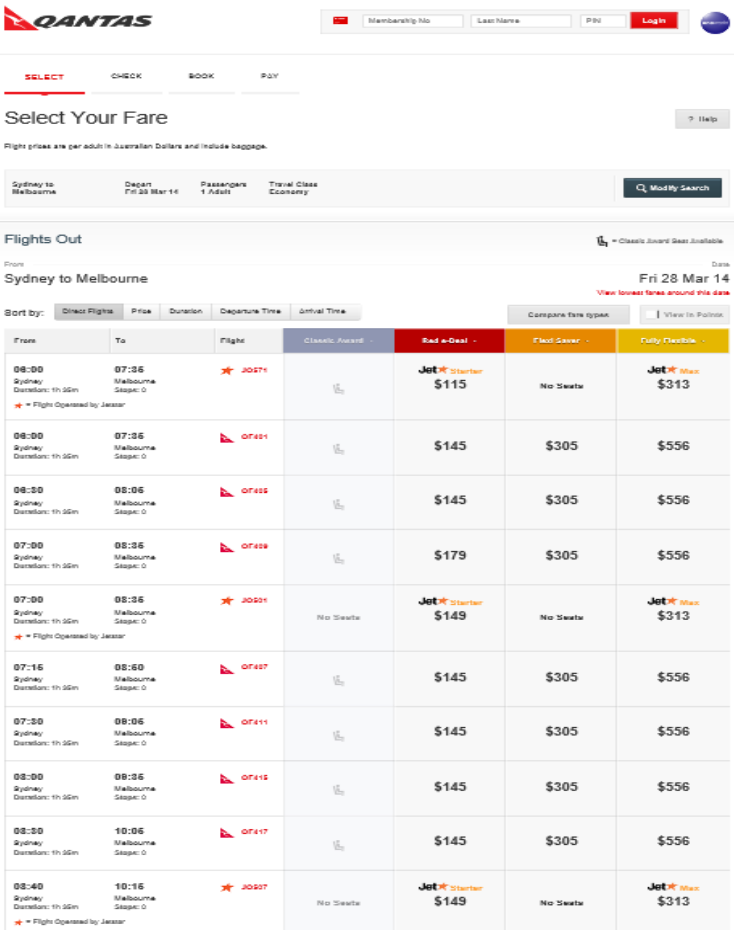
The first of two website shots below show a search for flights from Sydney to Honolulu on 28th March 2014. The Qantas website advertises the cheapest Qantas rate at $1038 whilst they also advertise Jetstar tickets at $785.

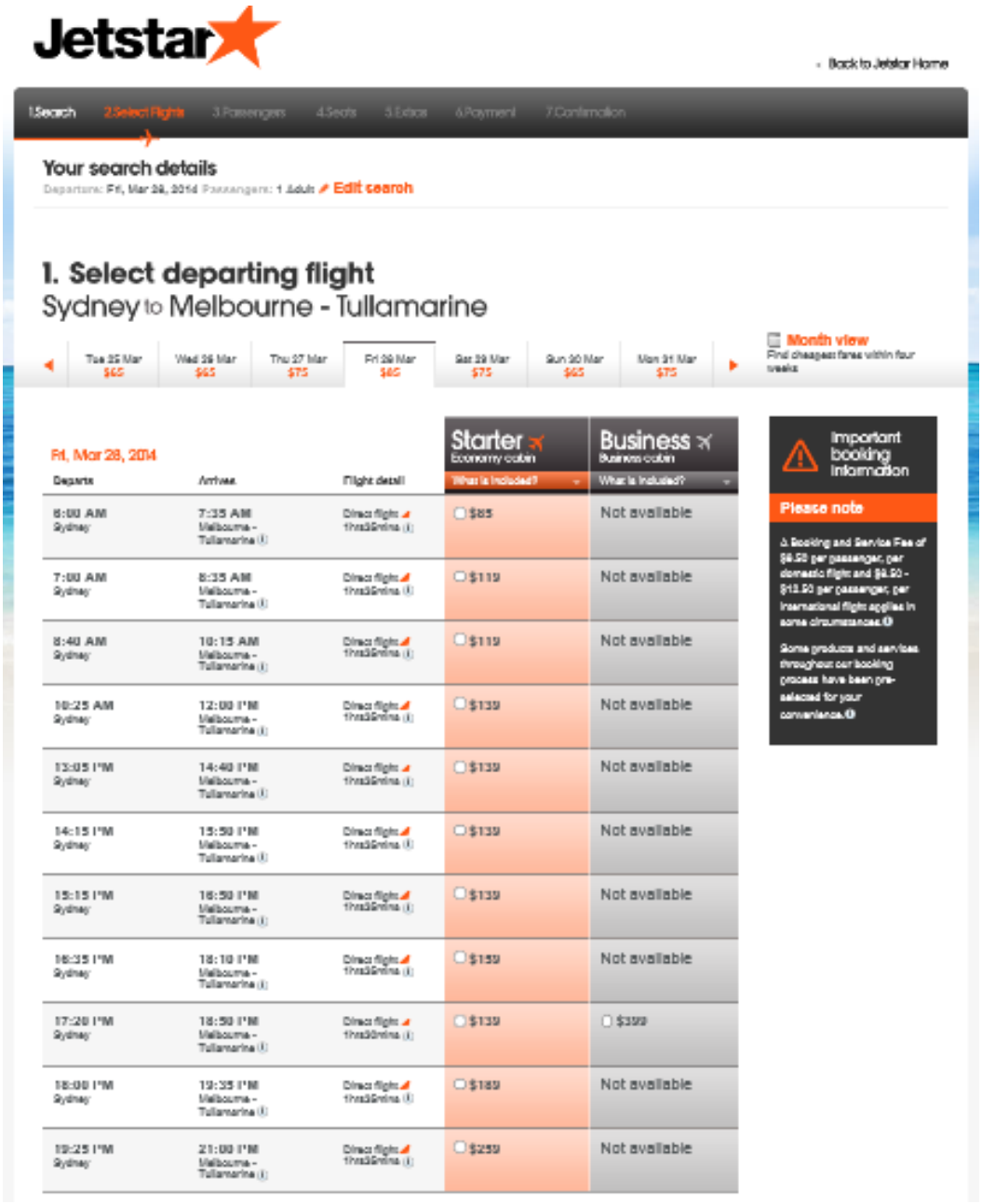
The third and fourth website shots show a search for flights from Sydney to Tullamarine on 28th March 2014. The Qantas website advertises the cheapest Qantas rate at $145 whilst they also advertise Jetstar tickets at $115.

People who access the Jetstar website directly can purchase Jetstar flights on these days even cheaper whilst no advertising of Qantas flights appears. Logically, passengers would eventually realise that the best offers were not available via Qantas and avoid accessing their website. The scenarios below could be replicated between any route that both carriers fly on almost any given day.




Jetstar
Back to Jetstar Home
1.Search
2.Select flights
3.Passengers
4.Seats
5.Extras
6.Payment
7.Confirmation
Your search details
Departure: Fri, Mar 28, 2014 Passengers: 1 Adult Edit search
1. Select departing flight
Sydney to Honolulu
Tue 25 Mar $469
Wed 26 Mar $449
Thu 27 Mar $469
Fri 28 Mar $652.16
Sat 29 Mar $489
Sun 30 Mar $449
Mon 31 Mar $469
Month view
Find cheapest fares within four weeks
Fri, Mar 28, 2014
Departs
Arrives
Flight detail
Starter
Economy cabin
What is included?
Business
Business cabin
What is included?
7:00 AM Sydney
6:00 AM Honolulu
1 stop 20hrs0mins
$652.16
$1,365.16
Business cabin not available for all flights
8:40 AM Sydney
6:00 AM Honolulu
1 stop 18hrs20mins
$652.16
$1,365.16
Business cabin not available for all flights
10:25 AM Sydney
6:00 AM Honolulu
1 stop 16hrs35mins
$672.16
$1,385.16
Business cabin not available for all flights
13:05 PM Sydney
6:00 AM Honolulu
1 stop 13hrs55mins
$672.16
$1,385.16
Business cabin not available for all flights
Important booking information
Please note
A Booking and Service Fee of $8.50 per passenger, per domestic flight and $8.50 - $12.50 per passenger, per international flight applies in some circumstances.
Some products and services throughout our booking process have been pre-selected for your convenience.


QANTAS
SELECT
CHECK
BOOK
PAY
Select Your Fare
Flights Out
Sydney to Melbourne
Fri 28 Mar 14
Sort by:
From
To
Flight
Classic Award
Red e-Deal
Flexi Saver
Fully Flexible
06:00 07:35 JQ571 $115 No Seats $313
06:00 07:35 QF481 $145 $305 $556
06:30 08:06 QF485 $145 $305 $556
07:00 08:35 QF489 $179 $305 $556
07:00 08:35 JQ501 $149 $313
07:15 08:50 QF497 $145 $305 $556
07:30 08:06 QF411 $145 $305 $556
08:00 08:35 QF415 $145 $305 $556
08:30 10:06 QF417 $145 $305 $556
08:40 10:16 JQ507 $149 $313



Market Share

Qantas claim that their International market share is ever diminishing. The following information has been repeated publically by Qantas spokespeople and appears in their 1st half 2014 results presentation.

- Competitor capacity growth into Australia running at double global average:
  - 46% increase since FY09, vs global growth of 21% from 2009-2013[1]

Statements such as this are misleading and create the impression that Qantas are struggling under the weight of increased and unfair competition. Global capacity growth in since FY09 is not the same as Asia-Pacific capacity growth within our region. Competitor capacity growth refers to the number of additional seats competitors are selling on services between Australia and other countries.

The following tables publically available from the Bureau of Infrastructure and Transport and contained within International Airline Activity publications explain why capacity growth into Australia has risen.

Table V Summary Statistics

	Year ended June 2011	Year ended June 2012	Year ended June 2013	Growth compared to 2012	Growth compared to 2011
Passengers carried	27 549 289	28 882 348	30 308 536	4.9%	10.0%
Freight (tonnes)	822 477	856 785	883 101	3.1%	7.4%
Mail (tonnes)	42 332	43 683	42 064	-3.7%	-0.6%
Available Seats	36 923 253	38 574 696	40 427 740	4.8%	9.5%
Flights	150 440	156 100	161 019	3.2%	7.0%
Aircraft Movements	161 108	164 473	169 876	3.3%	5.4%

Table V Summary Statistics

	Year ended June 2009	Year ended June 2010	Year ended June 2011	Growth compared to 2010	Growth compared to 2009
Passengers carried	23 486 506	25 625 654	27 549 289	7.5%	17.3%
Freight (tonnes)	709 374	759 979	822 477	8.2%	15.9%
Mail (tonnes)	36 581	38 141	42 320	11.0%	15.7%
Available Seats	32 174 834	34 309 383	36 923 253	7.6%	14.8%
Flights	131 560	141 194	150 440	6.5%	14.4%
Aircraft Movements	146 014	153 853	161 108	4.7%	10.3%

Between mid-2009 and mid-2011 the available seats (capacity growth) increased by 14.8%. Over the same period the number of passengers carried (purchasing the seats for sale) increased by 17.3%.

Between mid-2011 and mid 2013 the available seats (capacity growth) increased by 9.5%. Over the same period the number of passengers carried (purchasing the seats for sale) increased by 10%.

Between July 2009 and July 2013 Qantas has reduced passengers carried to Australia and decreased the amount of available seat kilometres for purchase. Jetstar has increased in both these areas however the total growth of the Qantas group over the period is in the 14-16% vicinity (depending on measure used) (appendix 9). This against a competitor growth of 46% and demand for travel still not met.

The increase in capacity growth by foreign operators into and out of Australia is only filling a hole vacated by Qantas. Competitor growth has been tempered to the point that it hasn't even matched the demand for travel to Australia. As demand continues to outstrip supply airfares will rise and the benefactors of increased airfares on these sectors will be every airline except for Qantas.

It has been Qantas's decision not to follow the increase in demand for air travel to and from Australia.

Jetstar Asian Franchises

Whilst Qantas continues to neglect a profitable and growing market for travel to and from Australia, they instead use capital to invest in Asian Jetstar branded-franchise airlines created under complex ownership arrangements designed to bypass local ownership restrictions. Overall the combined investment in the Jetstar franchises is too complex to analyse and prepare in this short submission. Two recent examples however demonstrate a complete underestimation of business practices in the region and market understanding by the Qantas Board.

Jetstar Hong Kong was registered in 2012 and planned to commence services in 2013. They have a nice new fleet of aircraft which we believe currently numbers 7 and with 3 more being delivered this year. These numbers of aircraft were put to Qantas at meetings this week and were not denied. The problem is, the airline is not flying as they have failed to gain regulatory approval from the Hong Kong authorities. The authorities are concerned that the ownership structure will have the airline effectively controlled from Australia by Qantas to bypass laws in Hong Kong. Qantas are burning large amounts of cash as these aircraft sit idle.

Jetstar Japan is another entity that appears not to have "hit the ground running". After an unknown amount of initial cash investment by Qantas into this franchise the airline was running out of operating cash. This required a $60M cash injection to prop up the failing airline in October 2013. Macquarie Equities has estimated that Jetstar Japan is losing $50M per year (see relevant Sydney Morning Herald article appendix 10).

Cash Strapped

While Qantas wastes money on failing enterprises in Asia, neglects the Australian International market and holds a hand out for Australian taxpayer assistance, they appear not to have any problems buying their own shares in attempts to increase the value of share holdings.

Across September and October 2013 (the half year of a record loss) they invested just short of $60M purchasing their own shares. The purchased shares were then destroyed. On 2 September 2013 the share price opened at $1.37, by the end of October it closed at $1.25. By 12 March 2014 the price was $1.09.

The $60M invested into their own shares has essentially vanished into thin air.

Cost Shifting

For many years the ALAEA has received reports that Annual Report segment figures and public statements made by Qantas regarding the ill health of the Qantas International business and prosperity of Jetstar franchises has been false and misleading. By 2011 we wanted to test the claims.

During enterprise bargaining negotiations as justification for an industrial position Qantas spoke of the incapacity to accede to ALAEA claims because of the Qantas financial position. Before Senior Deputy President Kauffman of Fair Work Australia we sought to challenge this assertion and claimed that bills for Jetstar and other subsidiary airline services were being paid by Qantas thus making it look like Qantas were unprofitable.

Qantas were directed to answer our questions. The first question we put to them was –

When a Qantaslink or Jetstar passenger uses the Qantas Club or Chairman's lounge facilities, what processes ensure that the cost is re-couped from those parts of the business?

Qantas advised us that these costs are not re-couped. This means that Jetstar and Qantaslink can sell tickets to their loyalty members on flights where food is not served, the passengers can eat and drink prior to the flight and Qantas foot the bill. Although this may seem like a small issue it validated our suspicions that Qantas were wearing the cost of other parts of the company.

We then advised Qantas that we have 60 other similar questions collated from reports made to the ALAEA by other Qantas staff who believe cost shifting was occurring in their part of the business. We put those questions to them in writing. They were never answered. A list of the questions is attached as appendix 11.

Because many of these concerns are hidden deep down in individual receipts and bank transactions of the overall group, it would be unlikely that auditors or forensic accountants would ever find evidence of this closely guarded Qantas secret. We were recently however provided with a document that in our view demonstrates the extent to which this cost shifting may be occurring.

In 2008, a Jetstar A330 aircraft had Heavy Maintenance work undertaken in Manila. Rather than bill Jetstar for this work, the attached bill (appendix 12) from Lufthansa Tecknik is addressed directly to Qantas Airways Limited.

Ansett Collapse

We understand that the House of Representatives have already passed amendments to the *Qantas Sale Act* that will drop any restrictions on foreign ownership. The matter is now under consideration by the Senate. We say that any change to the Qantas Sale Act that allows a majority stake holding in our National Airline to exceed 49% will see Qantas confined to history as Ansett was.

No other airline currently holds a financial stake in Qantas even though up to 25% would be permitted by the current Act. Other airlines are not interested in buying a stake today because Qantas are managed in such a way that there is no prospect of them returning a financial windfall to any prospective shareholder.

At 10%, 25%, 35% or 49% ownership there is no attraction for another airline to buy a shareholding in the airline. This all changes at 51%. Another airline with majority control could take the following steps –

- Sell the majority of spare parts (including engines) worth millions of dollars each.
- Place bills for their fuel on Qantas's account.
- Reduce maintenance to such a point that CASA could ground an entire aircraft type from the fleet.
- Transfer valuable landing slots to the parent airline.
- Kill off the competition that Qantas originally provided by dropping further services.
- Generally asset strip anything worth money to feed back to the parent.

We submit the above points are not a fanciful story. It's essentially a replica of what happened to Ansett after Air New Zealand took a majority stake holding in the former Australian airline. If changes to the *Qantas Sale Act* allow this to happen again we fear that not only our members, but over 30,000 Australians, would lose their jobs.

Part Three – Conclusion

Our submission regarding maintenance concerns and errors carried out on Qantas aircraft in Asian facilities leads us to a well-documented conclusion that maintenance in the facilities referred to is often compromised and in some cases dangerous. These facilities are frequented by Qantas aircraft that are outsourced from Australian facilities that are closing or otherwise unable to maintain the aircraft onshore. We conclude that any increase in offshore maintenance will lower the safety or Qantas aircraft and increase the likelihood of a fatal accident occurring.

By removing part 3 of the Qantas Sale Act maintenance will more likely be carried out offshore for two reasons. Firstly the requirement to keep the majority of facilities onshore required as per section 7B of Part 3 will be removed placing no limitation on the amount of offshore maintenance that could be conducted. Secondly, raising the foreign ownership cap above 49% could see a new owner transferring all maintenance to facilities that they own to increase profitability of the parent company. A decision of this nature by a majority shareholder could not be overridden. We recommend that –

The Senate committee request Qantas supply it internal Quality Assurance Audit reports for each Qantas Group aircraft that has been maintained offshore since January 2006.

The Senate retain within the *Qantas Sale Act* requirements of Part 3 Section 7 item (1) (h) – *require that of the facilities, taken in aggregate, which are used by Qantas in the provision of scheduled international air transport service (for example, facilities for the maintenance and housing of aircraft, catering, flight operations, training and administration), the facilities located in Australia, when compared with those located in any other country, must represent the principal operational centre for Qantas.*

It is apparent to the ALAEA that the strategies adopted by the airline are not working. Decision makers on the Qantas Board do not have an aviation background and are making poor decisions about the strategy of the company. Public statements made by the airline CEO about the quality of offshore maintenance, the "amazing" Jetstar franchises and the unproven ill-health of Qantas International are often misleading or false. The CEO's continued tenure with the company is fully supported by the Qantas Chairman Leigh Clifford. The following recommendation is therefore made-

The Senate committee request access to any Qantas accounts or records including Aircraft Leasing arrangements that will assist them to establish the accuracy or otherwise of statements made by the airline about the ill-health of the Qantas International business and alleged cost shifting to other segments within the Qantas Group.

If Qantas are given financial support of any kind by the Australian Government to use by the current Board and key people based on the existing failing strategies we suspect it will never be returned. On this point we make the following recommendations –

The Senate reject the current Bill which proposes to remove part 3 of the Qantas Sale Act 1992. The rejection should be based on the intent that Qantas is an Australian Airline and will always remain so.

The Australian Government should reject any request from Qantas for financial assistance or changes to the Qantas Sale Act until such time that a clear strategy has been put in place by a new CEO, Chairperson and Board that includes at least two persons with the following experience –

A Commercial Pilot who has a minimum of 10 years in a command position;

An Aircraft Engineer who has been Licenced for a minimum of 10 years;

A Flight Attendant with a minimum 20 years' experience;

A person who has a minimum 20 years' experience working as a Ramp employee;

A person who has a minimum 20 years' experience working in Airline Customer service.

Kind Regards

Steve Purvinas

Australian Licenced Aircraft Engineers Association

Federal Secretary