



PACDEFF 2009

FORUM 3



The current financial crisis and its effect on training





TOPICS

- Airlines and the global economic crisis
- CRM training – What is it trying to achieve?
- Is current CRM training effective?
- CRM training under fiscal pressure





AIRLINE PERFORMANCE 2009 Forecasts

REGION

LOSSES (USD)

NORTH AMERICA

1.0 BILLION

EUROPE

1.0 BILLION

MIDDLE EAST

1.5 BILLION

ASIA PACIFIC

3.4 BILLION

TOTAL WORLDWIDE

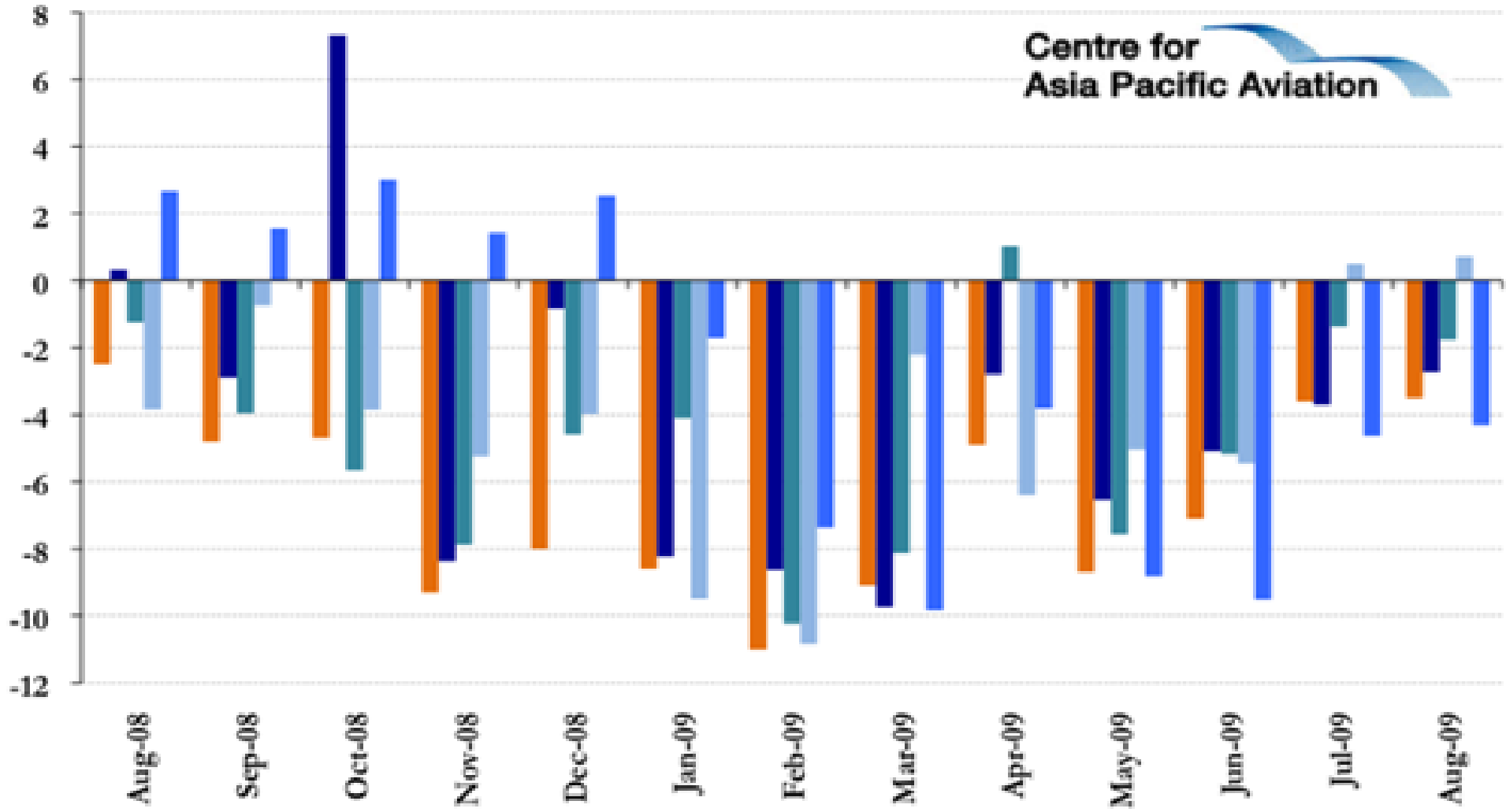
9.0 BILLION





AIRLINE PERFORMANCE Europe (year on year)

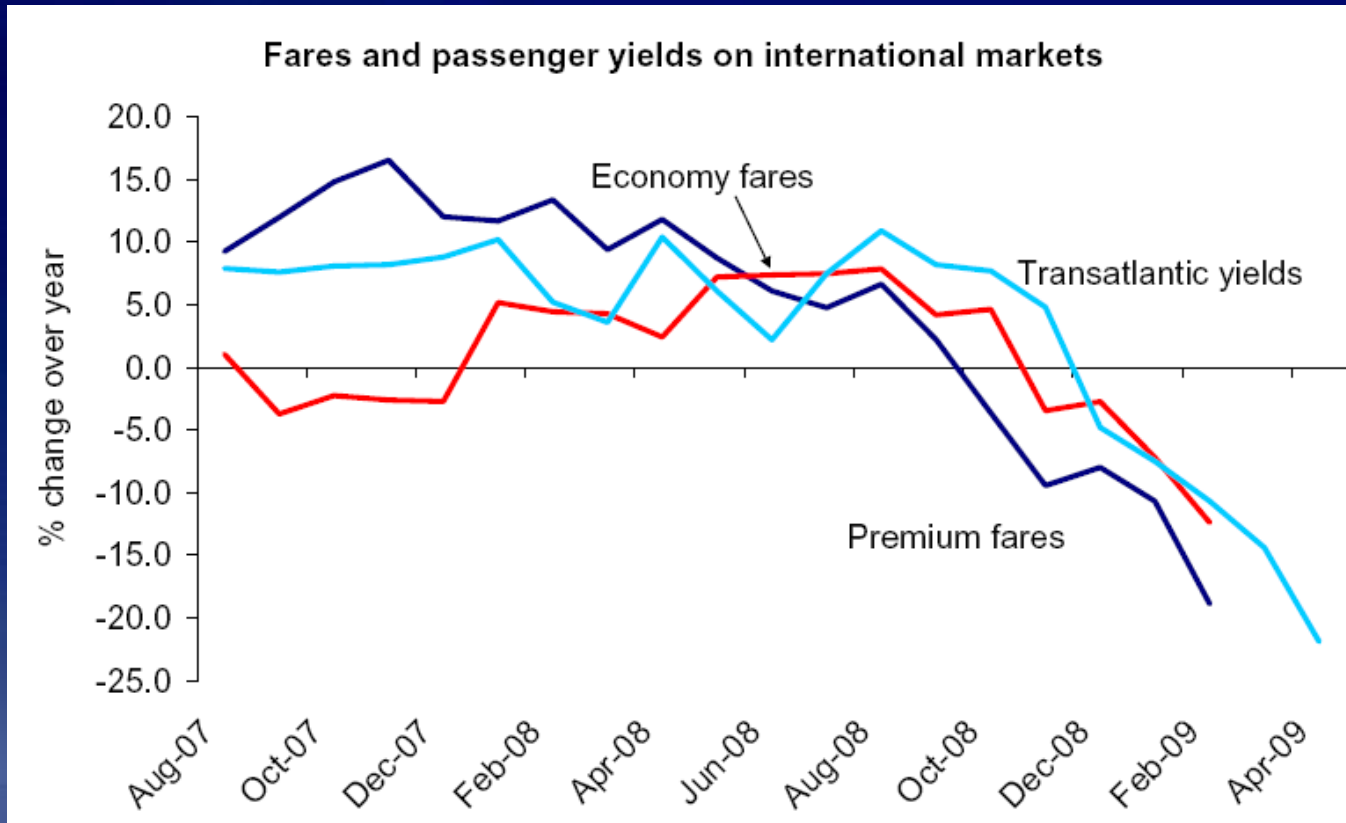
Centre for
Asia Pacific Aviation





AIRLINE PERFORMANCE

2009 Transatlantic Yields





AIRLINE PERFORMANCE USA 2009

Results in the last fiscal quarter:

DELTA Airlines **US\$161m Loss (Q3 2009)**

US Airways **US\$81m Loss (Q3 2009)**

AMERICAN Airlines **US\$359m Loss (Q3 2009)**

UNITED Airlines **US\$63m Loss (Q3 2009)**

SOUTHWEST Airlines **US\$16m Loss (Q3 2009)**





AIRLINE PERFORMANCE

Local Operators

Results in the last fiscal year:

Air New Zealand Group NZ\$115m Profit (Down 40%)

Qantas Group A\$123m Profit (Down 87%)

Virgin Blue Group A\$160m Loss (Down \$300m)

Cathay Pacific (2008) NZ\$2.1b Loss (Down \$3.5b)





SURVIVING THE ECONOMIC CRISIS - HOW ARE AIRLINES COPING?

By maximising **PROFITS** or minimising **LOSSES** through yield and route management; including:

- Matching Capacity to Demand
- Cancelling unprofitable routes
- Reducing frequency
- Codesharing and other alliances
- Careful revenue management
- Seeking new profitable opportunities





SURVIVING THE ECONOMIC CRISIS - HOW ARE AIRLINES COPING?

By reducing **fixed** and **variable** costs:

- Parking aircraft up
- Redundancies and LWC
- Reduced maintenance costs
- Fuel conservation strategies
- Financial tools
- Operational Efficiencies
- Deferring Capital Investment
- Outsourcing
- Salary reductions
- **Reduced Training**



HOW CAN AIRLINES REDUCE TRAINING COSTS?

Training is made up of various facets:

- Regulatory Training
- Technical Training
- Discretionary Training
- Non-Technical Training





HOW CAN AIRLINES REDUCE TRAINING COSTS?

Regulatory Training

- Pilot simulator checks
- Flight Attendant and Pilot SEP recurrency

Difficult to trim



HOW CAN AIRLINES REDUCE TRAINING COSTS?

Technical Training

- CAT 2 / CAT 3 Approaches
- RNP / RNAV
- EDTO
- SERVICE TRAINING

Difficult to trim without operational implications



HOW CAN AIRLINES REDUCE TRAINING COSTS?

Discretionary Training

- Simulator Training Exercises
- Non-regulatory Training
- Leadership / Teamwork Training

Some trimming, but a reluctance generally for airlines to trim back on simulator training





HOW CAN AIRLINES REDUCE TRAINING COSTS?

Non-Technical Training

- Human Factors
- Non-Technical Skills
- Crew Resource Management

Easy for “**Bean Counters**” to ask what the tangible benefits are.



A ripe target for trimming in organisations without serious commitment to CRM



WHAT ARE THE BENEFITS OF NON-TECHNICAL SKILLS / HUMAN FACTORS / CRM TRAINING?

Development of:

- Knowledge
- Skills
- Attitudes

All of which contribute to both **CRITICAL**
and **ENABLING** abilities which we need to
do the job effectively





WHAT ARE THE BENEFITS OF NON-TECHNICAL SKILLS / HUMAN FACTORS / CRM TRAINING?

A combination of these **Knowledge**, **Skills** and **Attitudes** make up the **behavioural competencies** which we need to do the job successfully.

- These include:
- Situational Awareness / SMM
 - Decision making
 - Leadership / Followership
 - Teamwork / Coordination
 - Communication
 - Threat and Error Management



EMPIRICAL BENEFITS OF NTS/HF/CRM TRAINING?

Various studies have tried to analyse the benefits of CRM type training in an empirical sense.

A **meta-analysis** by O'Connor, Campbell, Newon, Melton, Salas & Wilson (2008) examined CRM effectiveness in 74 previous studies in this area.

Previous meta-analyses in 2001, 2002 and 2006 by researchers returned vary similar results.



EMPIRICAL BENEFITS OF NTS/HF/CRM TRAINING?

O'Connor et al came up with four common areas of assessment, and concentrated their paper on studies which conformed to these four levels of CRM effectiveness:

1. **Reactions** by crews to CRM training
2. **Learning** of principles, facts and skills
3. Behavioural changes
4. **Organisational** impact



EMPIRICAL BENEFITS OF NTS/HF/CRM TRAINING?



Level 1: Reactions by crews to CRM training

Generally based on feedback at the end of training via some feedback process.

On average participants gave the usefulness of CRM training **4.18 out of 5**, indicating a high degree of usefulness.



EMPIRICAL BENEFITS OF NTS/HF/CRM TRAINING?



Level 2: Learning of principles, facts and skills

Includes two areas: **retention of information**, and a **change of attitudes**.

Attitudes generally assessed using **CMAQ/FMAQ** type instruments.

Generally indicated a **large and significant improvement in attitudes** of participants to the topics covered in CRM



EMPIRICAL BENEFITS OF NTS/HF/CRM TRAINING?

Level 3: Behavioural changes

Based on Behavioural Marker assessments such as the **NOTECHS**, **LLC** or **TARGETS** systems

Some studies indicated changes in behaviours, but others were **less conclusive**.



EMPIRICAL BENEFITS OF NTS/HF/CRM TRAINING?

Level 4: Organisational impact

Generally assessed by tangible evidence at an organisational level of improvements in **safety and productivity**.

Given inherently low accident rates, it is **difficult to assess** this.

Analysis of Human Factors causation in **incident rates** warrants further study.





WHAT ARE WE AFTER FROM NTS/HF/CRM TRAINING?

1. A greater level of **knowledge**, **retention** and **understanding** about NTS/HF/CRM topics
2. **Positive Attitudes** to CRM which encourage crews to participate in training, to learn and retain information, and to want to use the skills they learn in practice on the line.
3. A **change in behaviours** whereby crews practise sound Non-technical skills and apply them in all areas of the job, including Threat and Error Management



HOW DO WE ACHIEVE THIS?

- Engagement
- Quality training with knowledgeable, well trained and capable facilitators
- Sufficient training time and resources
- Organisational buy-in and commitment
- An emphasis on practical application of Non-Technical skills
- Holistic reinforcement of positive Non-Technical Skills in all areas of both training and assessment
- Using explicit Behavioural Markers as guidelines and yardsticks





HOW IS THIS ACHIEVABLE IN THE CURRENT FISCAL ENVIRONMENT?

1. Continued organisational commitment
 - In some organisations there is no wavering here. There is a **clear and overt commitment** to NTS/HF/CRM training.
 - In other organisations financial constraints force senior managers without such commitment to look at ways in which they can reduce spending on **“nice to have”** training eg.
 - using cheaper facilitators
 - reduced training time
 - reduced resourcing



HOW IS THIS ACHIEVABLE IN THE CURRENT FISCAL ENVIRONMENT?

2. Smarter, more productive training with an **emphasis on outcomes** and **behavioural changes**.

- Engagement of participants
- Effective classroom training which promotes retention and comprehension
- A more practical rather than theoretical emphasis
- Positive reinforcement of behavioural and attitudinal changes



HOW IS THIS ACHIEVABLE IN THE CURRENT FISCAL ENVIRONMENT?

3. Ubiquitous **promotion** across the industry of the **benefits of NTS/HF/CRM training**

- Overt campaigning by NTS/HF/CRM Training Managers and Facilitators
- Promotion of tools such as FMAQ/CMAQ and LOSA as empirically based measurements of CRM success
- Relevant academic studies which quantify the benefits of NTS/HF/CRM Trg.
- Positive promotion of the benefits of forums such as AAvPA and PACDEFF



SUMMARY

These are challenging times across this industry, and across other high risk/high tech industries which rely intensely on human participation.

We are here because we are believers and supporters of NTS/HF/CRM training, but not all organisations or individual managers share our level of support.

Training smarter, and aiming for practical improvements in both attitude and behaviours, will help engender support for HF programmes in these troubling times.

