Cabin/Cockpit Communication: Post 9/11

Rebecca D. Chute

Presented at the Assault and Hijacking Workshop sponsored by the Human Factors Group of the Royal Aeronautical Society
April 10, 2002  London Heathrow
Outline

- Characterize crew interactions before and after September 11
- Discuss Information Transfer Model and impact on crew coordination and passengers
- Enumerate intervention strategies to optimize crew performance and passenger interactions
- Objective: Food for thought when designing procedures and policies
Before September 11

**Objectives:**
- Promoting more in-flight interaction
- Dispelling biases, suspicions
- Encouraging accurate and timely reporting of problems
- Creating trust and mutual respect

**Goal:** Becoming one crew
The World Changed
After September 11

¬ Cockpit door closed, bolted, barricaded
¬ F/As relinquished cockpit keys
¬ Pilots confined to flight deck
¬ Passengers viewed with suspicion

Result: Two separate crews
The Problems

- Frustrated, angry passengers
- Intoxicated, substance-induced
- Psychotic episodes
- Terrorists
- Copycats - seeking notoriety
- Over-reacting passengers
## Crew Concerns

<table>
<thead>
<tr>
<th></th>
<th>Before Only…</th>
<th>After, Includes…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assault</td>
<td>Spontaneous</td>
<td>Pre-meditated</td>
</tr>
<tr>
<td>Passenger Misconduct</td>
<td>Individual</td>
<td>Group</td>
</tr>
<tr>
<td>Hijacking goal</td>
<td>Ransom/ Sanctuary</td>
<td>Suicide/ Political</td>
</tr>
<tr>
<td>Casualties</td>
<td>Few, if any, killed</td>
<td>Mass murder</td>
</tr>
</tbody>
</table>
Crew Collaboration

“You are on your own”
Not Necessarily!
BUT - No simple solutions

Requirements:
- Teamwork
- Information transfer
- Adequate resources
Information Transfer Model

CABIN

Historical
Physical
Psychosocial
Regulatory
Organizational

COCKPIT

Chute & Wiener, 1994; 1995; 1996
Physical

- Isolation in-flight
- Lack of situation awareness
- Cockpit door management
  - Entry procedures
  - Codes
  - Identify resources
- Decision-making skills
  - Relative risk assessment
  - Weigh consequences - avoid power struggle - enforce when on ground
Interphone and PA

- Old technology - no changes in decades
- Brittle - often fails in accidents/incidents
  - Qantas BGK, Tower Air JFK, Valujet, UAL 811, etc.
- Fidelity of transmission poor
  - Compromises message delivery
- Time to press manufacturers for new, robust communication media
  - Cabin video monitoring
  - Graphical interfaces
  - Headsets
  - Others?
Psychosocial

Technical knowledge important skill aiding F/A reporting (Dunbar, Chute, & Jordan, 1997)

F/A communication
- Social, affective
- “That guy is such a jerk!”

Pilot communication
- Technical, factual
- “Male in 5F refuses to comply with seat belt sign”

Teach cabin crew reporting skills:
concise, concrete, and calm
Regulatory

↓ Lack of enforcement
  † In US, vast majority of unruly passenger incidents:
    no action - sometimes rewarded!
  † Consistent, firm enforcement needed

↓ Licensing of cabin crew
  † Advantages: Professionals, training standards
  † Disadvantages: Expense, violations

↓ May be at point where level of skills needed
will dictate licensing
Organizational

- Pair crews together
- Support pre-flight briefings
  - Briefings characteristic of high-performing crews (Ginnett, 1987)
  - Provide time, location, training
- Promote debriefings
- Security training
  - Diffusion of passenger anger
  - Self-defense
  - Free cabin crew training by WorldBlackBelt.com sponsored by Paul Mitchell
Historical

Early Image: Brave, adventurous, professional
50’s and 60’s Image: Idealized, glamorous
70’s & 80’s Image: Objectified, devalued
90’s Image: In the background
21st century: Full circle?
Cabin Crew Heroes

- Frankie Housley, 1951
- Michelle Honda, Aloha 243 Maui
- Richard deMery, USAir 1016 CLT
- Betty Ong, Amy Sweeney, AA11, WTC
- Hermis Moutardier, Cristina Jones AA63
- Others?
Interventions - Now more than ever:

» Crew familiarization
  † Schedule crews together
  † BRIEFINGS!!!
    ‣ Preflight
    ‣ Debriefings
    ‣ Layovers

» Communication between crews
  † Technical knowledge for F/As
  † Reporting skills
  † Bring communication technology into 21st century
    ‣ Interphone
    ‣ Cabin video monitors in cockpit
    ‣ New intra-crew communication technologies

» Decision-making and diffusion skills for cabin crew
  † Rationale behind policies, regulations
  † Relative risk assessment
Interventions (cont.)

- Promote new image of cabin crew e.g. heroic, professional
- Selection criteria
  - Resourceful
  - Likes a challenge
  - Professional
- Enforcement must be consistent and firm
- Licensing should be reconsidered
Summary

- Complexity of crew dynamics and in-flight operations have increased
- Cabin crews more self-reliant, but not necessarily isolated
- More responsibility thrust upon them - give them the tools they need to manage effectively
- Flight-deck personnel should actively encourage trust and solicit communication
- Organizations must support cockpit/cabin teamwork on and off aircraft
- Remember the crews…