

Aviation Food Safety

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IFST AGM November 2015



A bit about me to start.....

- Technical Director of a food manufacturing company from 1996 – 2008
- Retail customers included Waitrose, Morrisons and Sainsburys
- In 2001 started a commercial airline catering division
- By 2008 manufacturing 30'000 airline meals a week many of which were special dietary meals under IATA codes
- Worked as food safety advisor to IATA, ICAO and NBAA
- responsible for re-writing the food section of the 'Guide to Hygiene and Sanitation in Aviation' for the World Health Organisation



That was thenthis is now

- Food safety Specialist /academic at University of Greenwich – NRI
- Policy Manager for BRDO
- Chair of IFST Membership Committee
- Any views presented this evening are entirely my own

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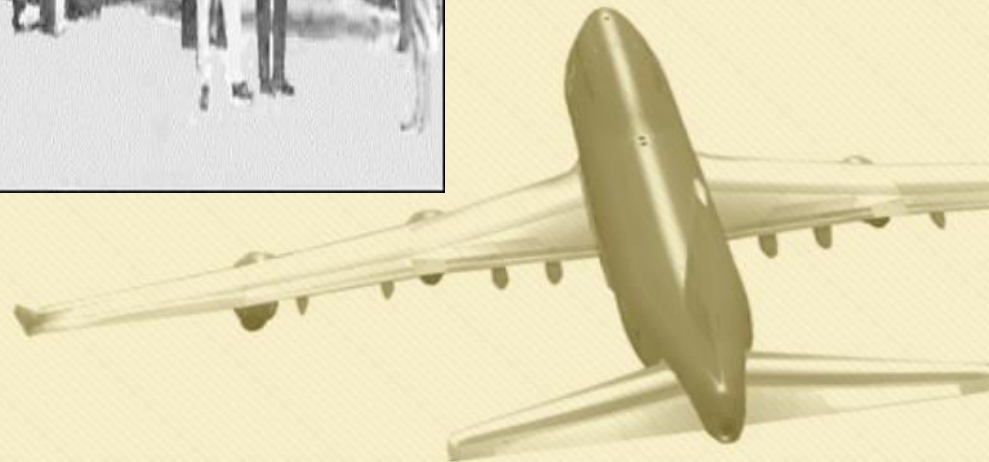
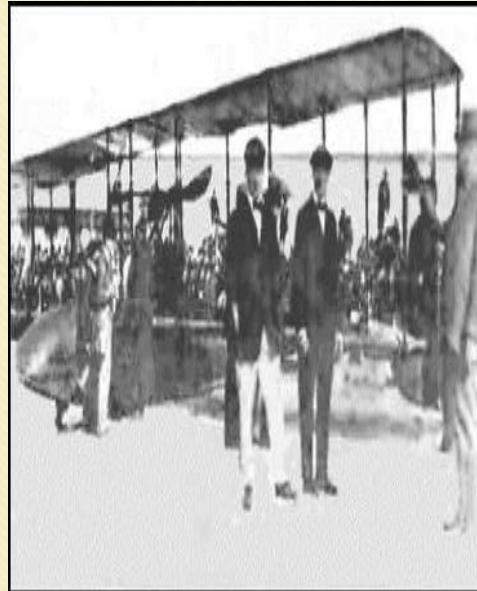
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Airline Catering the Facts

- First airline passenger Abe Pheil - 1st January 1914 St Petersburg to Tampa Florida
 - First record of in-flight catering appeared in 'Flight' magazine on 14 December 1922
- " Mr Lloyd, the manager of the Trust House has now arranged for luncheon boxes for any passenger who feels that he or she would like to relieve the monotony of an air journey by taking an airline meal"*



Airline Catering the Facts continued....

- Today over 55 million airline meals made daily across the globe
- The vast majority of meal provision globally involves one of the following companies or their subsidiaries;
- LSG Skychefs
- Gate Gourmet
- DHL



Major Food Safety Considerations?



.....could be

- <https://www.youtube.com/watch?v=7Qs6fR-UYYk>



What are the challenges?

- Product development – rotations – RTE and RTH
- Multi faceted product and process control considerations
- Human factors
- Supply chain – raw materials and finished product
- Shelf life
- Export mature of product
- Sterile and non sterile activity
- Logistics and in flight handling
-80% logistics 20% catering



Other considerations

- Regulatory landscape – IHRs, local enforcement
- Industry guidance and voluntary codes;

IATA, ITCA/IFSA, WHO, Medina

- Food Safety v Food Security
- Global transit of FBD
- Crew safety and fitness to fly
- Bio terrorism
- Climate change/ economic drivers

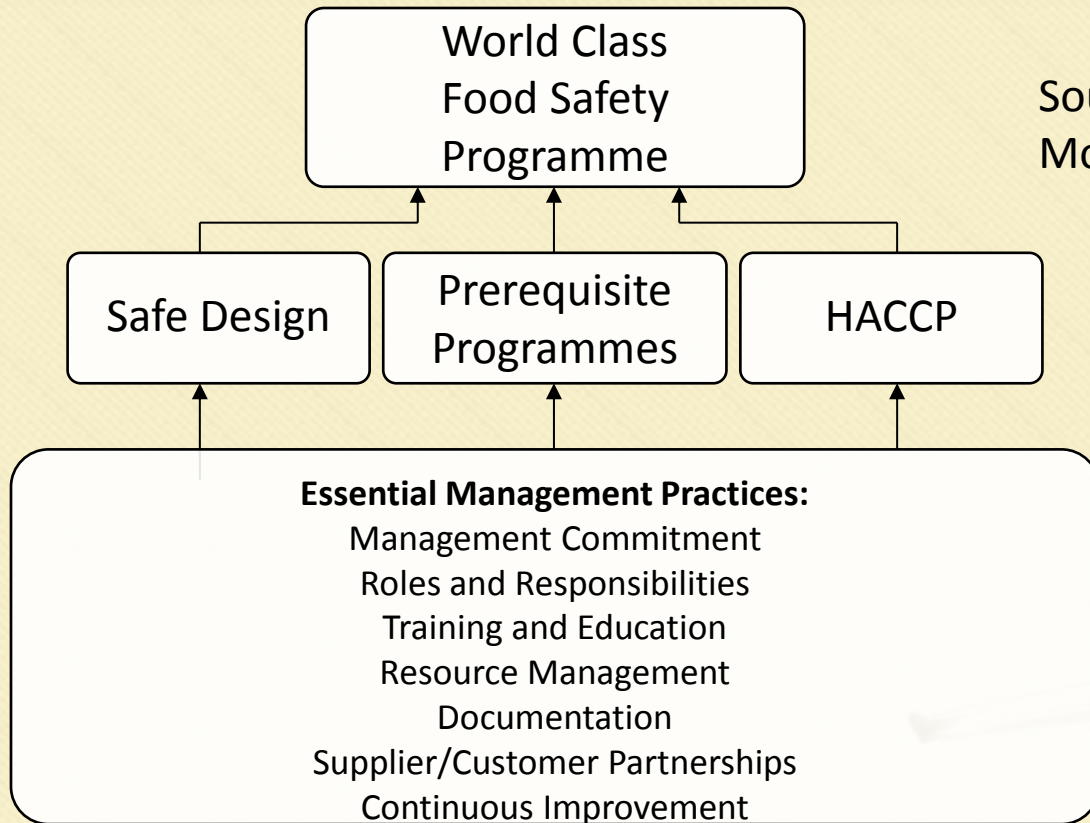


HACCP - Cook Chill and Airline catering – a series of challenges

- Merging catering and manufacturing food safety management ethos
- Ensuring processes are refined to mitigate risk
- Creating bespoke RTE meal solutions against a wide range of customer requirements
- Logistics and third party handling concerns
- On board safety issues
- The problems of traditional approaches to HACCP in this sector



What makes HACCP work?



Source: Food Safety for the 21st Century
Mortimore and Wallace 2012



HACCP for Airline Catering – where to start?

- Making sure full gamut of product and process variables is understood
- Treat all individual airline requirements as one in the scope – do not silo products or processes that are airline specific they need to be FSM generic
- Do not overlook transfer steps and consider work flow
- Joined up thinking between quality and safety parameters
- Re-work and product shelf life
- Build safety features into product development
- Tear up the industry guides !!!
<http://www.ifsanet.com/Default.aspx?tabid=236>

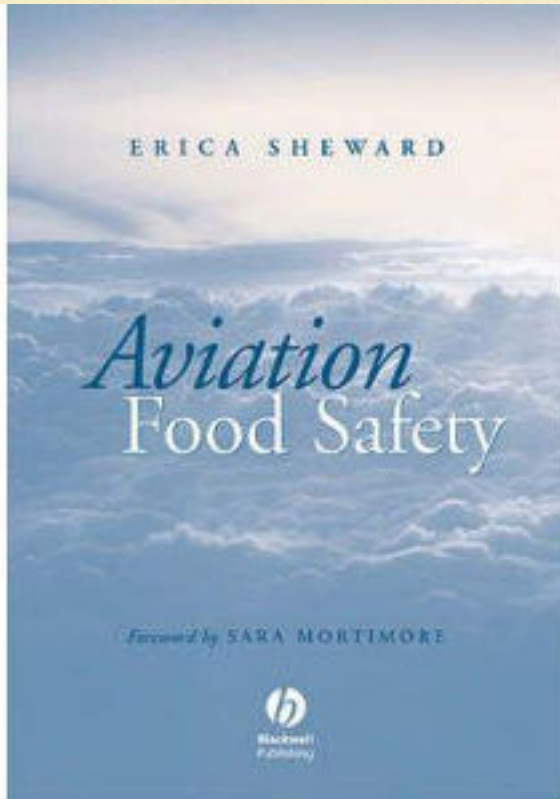


Food Safety Management-HACCP

- **H**ave
- **A**irlines
- **C**onsidered
- **C**risis
- **P**revention?



I didn't think so in 2003



..... which is why
I wrote this book



Linear Flow Diagram- simplifying the complex

- Workflow
- Transfer
- Sterile and non sterile transit
- Waste flow
- Equipment flow
- Don't miss a trick (or a toothpick !)

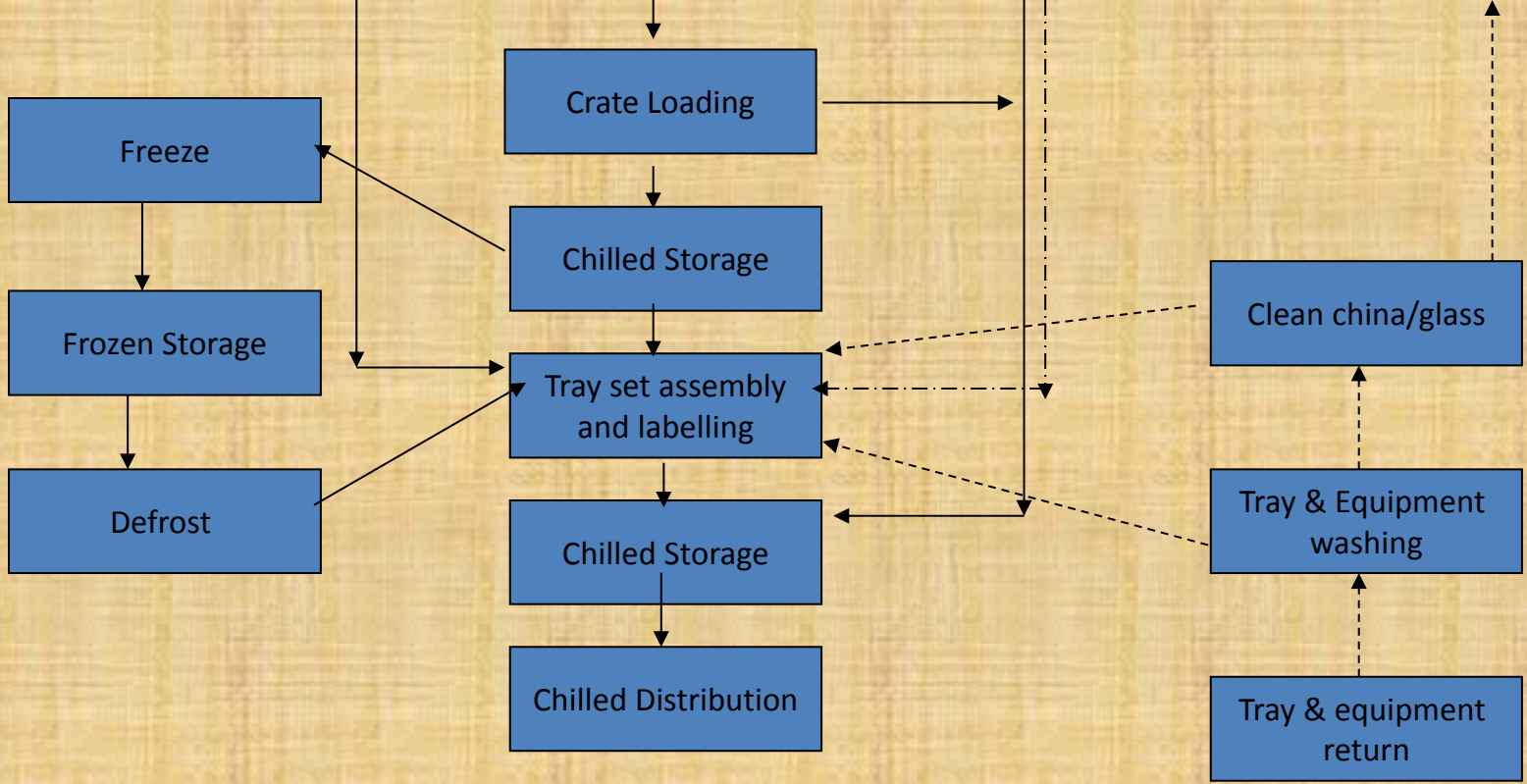




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TO THIS





Linear Approach Slide 2

Hazard Analysis

- Product and process specific hazards
- Allergen management
- Team activity – validated
- Sound microbiological basis
- Seek expert help if deficient team expertise
- Keep current with menu rotations
- Constant review of product and process specific hazards



CCP Identification – sound familiar?

- Completed by HACCP team
- Use of Codex Decision Tree
- Narrows down from large amount of hazard analysis information to small number of essential points
- Critical limits, monitoring and corrective actions then specified for practical control day-to-day



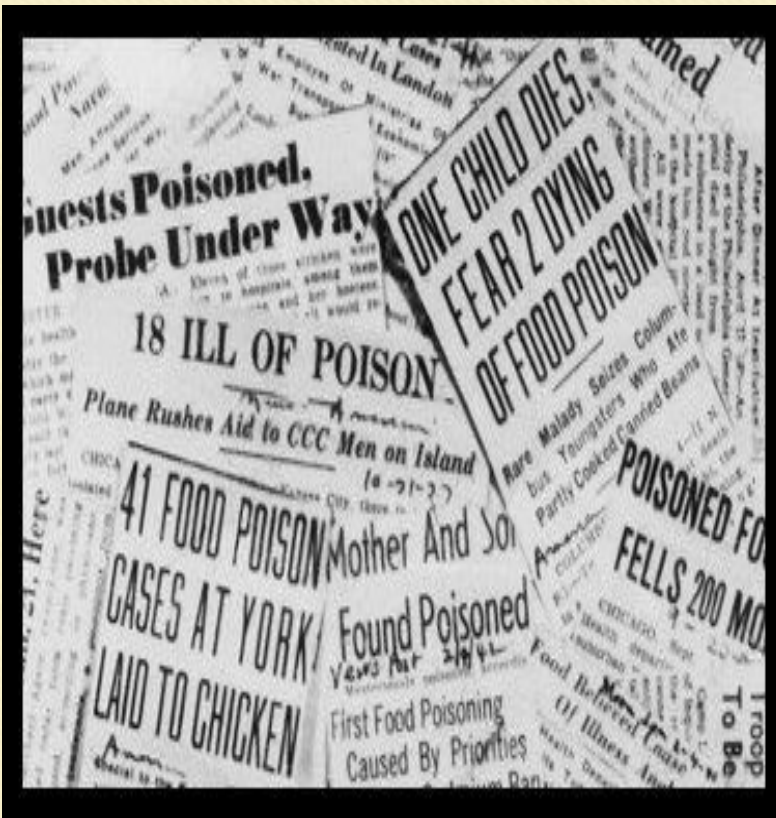
In Summary

- Manufacturing style HACCP approaches must be adopted when volume catering is involved and where complex supply chains are involved
- Food safety management systems must be product and process specific and not industry generic
- Specific considerations must be made for allergen control
- Strong prerequisite systems supporting fewer CCPs than traditional catering approaches



Conclusions

- The provision of safe food to airline passengers is now a multi-billion dollar industry worldwide
- As the aviation industry continues to grow year on year, so do passenger food service expectations
- With increasing demand for wider choice and greater quality
- Often neglected and under-regulated, food safety should be of paramount importance amid this growth



Any Questions?

