



Security in knowledge

**INDIAN AIRLINES FLIGHT 814  
HIJACK MISSION FAILED**

**MANU SHEEL GUPTA**

SEETA

Session ID: MASH-F41B

Session Classification: GENERAL

**RSACONFERENCE2013**

Friday 4 January 13

# Indian Airlines Flight 814

- ▶ Hijack Mission Failure
  - ▶ Causes and Prevention
    - ▶ IC 814 Hijack Operation
    - ▶ Why it was successful?
    - ▶ Novel Framework to prevent future hijacks and its advantages
    - ▶ Conclusion

# Airplane Hijack

What cannot be cured, must be adored?

# Impact of Airplane Hijack

- Morale - :( :( :( :( :( :( :( :( :( :( :( :( :( :( :( :( ...
- Productivity - :( :( :( :( :( :( :( :( :( :( :( :( :( :( :( :( ...
- Losses - :( :( :( :( :( :( :( :( :( :( :( :( :( :( :( :( ....
- After-Hijack Terrorism Turnover - :( :( :( :( :( :( :( ...

# IC - 814 Operation

## Day 1



# Hijack Operation Begins



# Amristar Airport





# Lahore Airport





# Lahore Airport



# Towards UAE Airport



# UAE Airport



# The next destination





# Kabul Airport



# Negotiation and the release of passengers



# The Aftermath





# The Aftermath



# Why it was successful?

- Lack of basic level security measure and control at the airport.
- Hijackers were successful to create an illusionary identity as passengers.
- Hijackers were able to terrorize and dominate throughout the entire operation.

# Why it was successful?

- Lack of understanding of the crisis and cooperation between decision makers at Delhi and Amristar.
- Negative support by the decision makers in Pakistan and Afghanistan in 1999.
- No attempt to punish those responsible after the hijack operation by India and US.

# Novel Framework to prevent hijack

- Marker-less approach for human identification using structural and transitional characteristics [1].
- Dynamic information.
- Nodal Point Determination, Skeleton Formation, and Feature Vector Creation.

Reference - "ST-Gait: A Framework for Human Identification using Structural and Transitional Characteristics of Gait", Anand Gupta and Pragma Goel, Department of Computer Engineering, Netaji Subhas Institute of Technology, New Delhi, India.

Journal - Advanced Materials Research Vols. 403-408 (2012) pp 850-857. Available online at [www.scientific.net](http://www.scientific.net)

# Novel Framework to prevent Hijack

## Information Analytics

- Gather data from multiple sources - video, pictures.
- Data Staging
- Use SocialCalc open source engine (light weight open source JavaScript engine) for data visualization and validation at the airports.
- Communication : Collaboration in SocialCalc

# Novel Framework to prevent Hijack

Breaking the silence and distracting the hijackers at the airplane

- Virtual Alarm system by means of "Illusion".
  - Create a simple storage drive with popular songs.
  - Develop a simple ipod/ipad application which could play songs that could be broadcasted over the mesh network. Give the devices to the passengers.

# Conclusion

Yes, we can and we must make a difference.



# Feedback

Questions :) Comments :)



Security in knowledge

# INDIAN AIRLINES FLIGHT 814 HIJACK MISSION FAILED

MANU SHEEL GUPTA

SEETA

Session ID: MASH-F41B

Session Classification: GENERAL

**RSACONFERENCE2013**

Friday 4 January 13