



## Regional Seminar / Meeting on Aviation Medicine

Lima / Peru 30 March to 3 April 2009

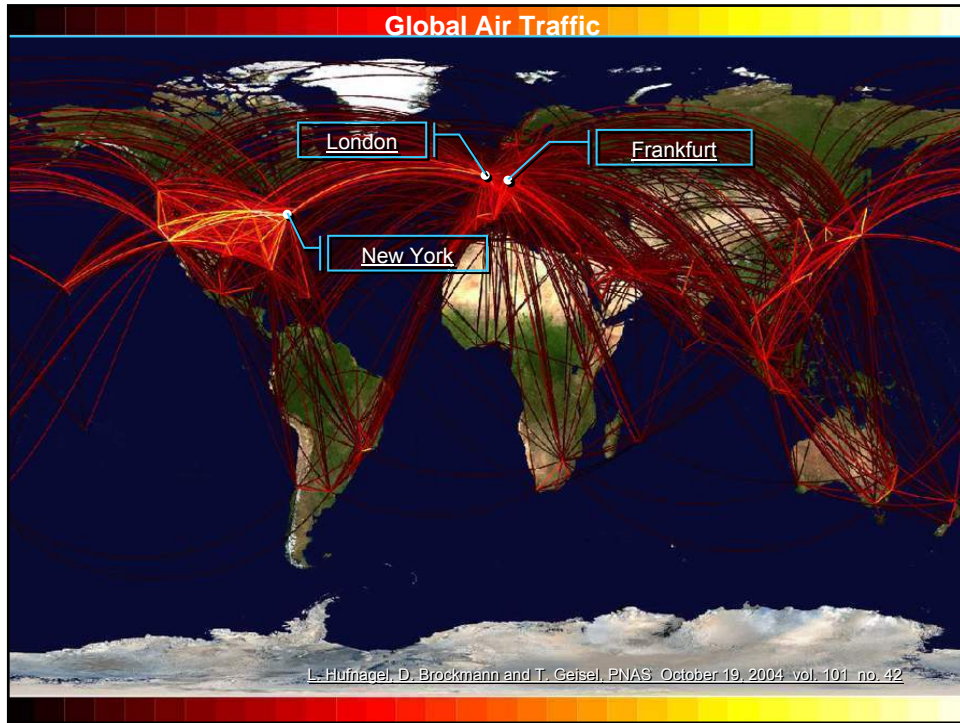
**Dr. Rainer Hofmann MD**  
**Medical Services**  
**Fraport/Frankfurt Airport**  
**Germany**

International Civil Aviation Organization  
World Health Organization  
International Air Transport Association  
Airports Council International  
Fraport / Frankfurt International Airport



Airport  
preparedness  
for infectious diseases and  
pandemics





# The Pandemic comes – does not come....



Thibeault 2008

## Current pandemic threat: H5N1



### Vogelgrippe auf dem Vormarsch



**Symptome:** Fieber, Atemnot, Durchfall, oft Tod nach wenigen Stunden oder Tagen  
**Ausbreitung:** vor allem bei in Massentierhaltung lebenden Vögeln (Hühner), z.B. über den Kot, Krankheit ist auf den Menschen übertragbar  
**Befürchtet wird:** die genetische Vermischung des Vogelgrippe-Virus mit Influenza-Viren – dadurch wäre auch eine Übertragung von Mensch zu Mensch möglich



dpa - Grafik 9/05



## Goal of Airports :

- Keep the Airport running.....



## Goal of Public Health Services :

Keep the Pandemic outside





## Airport Closure and the Consequences (international Airport, 50 % Transit Passenger)



- **weather** (freezing rain, long lasting snowfall)

OR

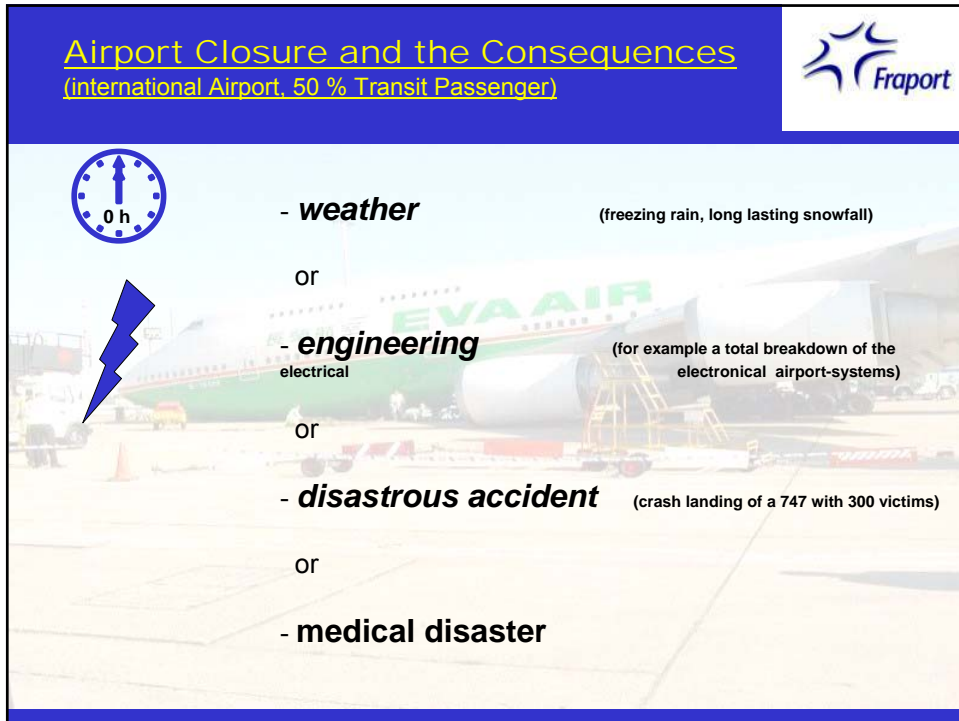
- **engineering** (for example a total breakdown of the electrical systems)

OR

- **disastrous accident** (crash landing of a 747 with 300 victims)

OR

- **medical disaster**



4 long-haul aircrafts could **not start**  
27 medium-haul aircrafts could not start  
8 short-haul aircrafts could not start

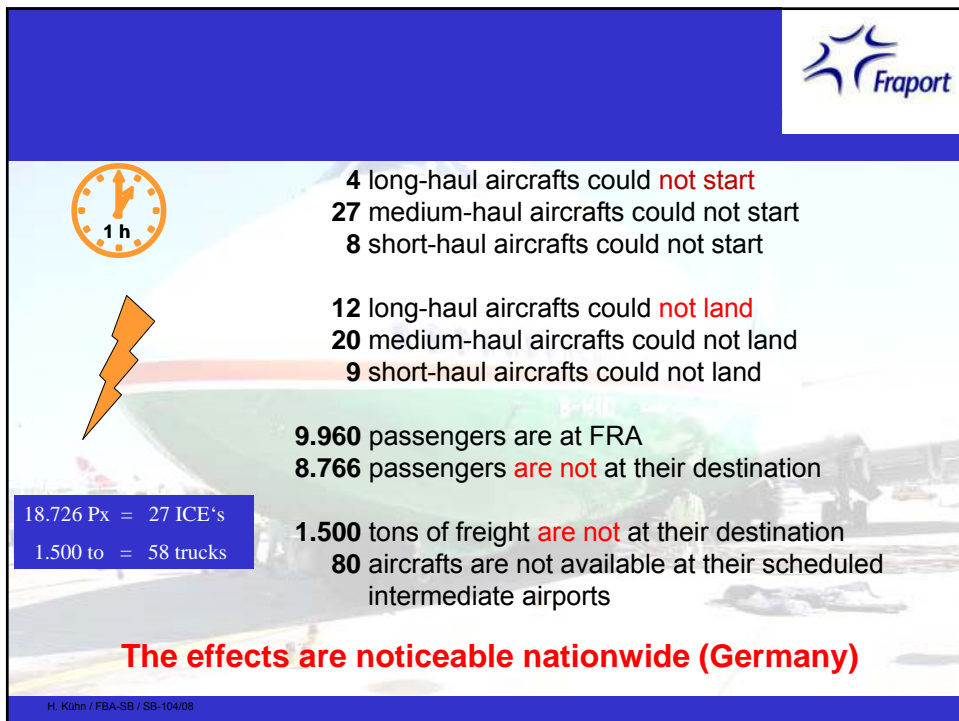
12 long-haul aircrafts could **not land**  
20 medium-haul aircrafts could not land  
9 short-haul aircrafts could not land

9.960 passengers are at FRA  
8.766 passengers **are not** at their destination

18.726 Px = 27 ICE's  
1.500 to = 58 trucks

1.500 tons of freight **are not** at their destination  
80 aircrafts are not available at their scheduled intermediate airports

**The effects are noticeable nationwide (Germany)**





38.010 Px = 54 ICE's  
2.715 to = 104 trucks

8 long-haul aircrafts could not start  
54 medium-haul aircrafts could not start  
16 short-haul aircrafts could not start

28 long-haul aircrafts could not land  
41 medium-haul aircrafts could not land  
16 short-haul aircrafts could not land

20.478 passengers are at FRA  
17.532 passengers are not at their destination

2.715 tons of freight are not at their destination  
163 aircrafts are not available at their scheduled intermediate airports

**The effects are noticeable Europe-wide**



58.086 Px = 83 ICE's  
4.139 to = 159 trucks

13 long-haul aircrafts could not start  
80 medium-haul aircrafts could not start  
25 short-haul aircrafts could not start

44 long-haul aircrafts could not land  
62 medium-haul aircrafts could not land  
24 short-haul aircrafts could not land

31.596 passengers are at FRA  
26.490 passengers are not at their destination

4.139 tons of freight are not at their destination  
248 aircrafts are not available at their scheduled intermediate airports

**The effects are noticeable worldwide**

## International Health Regulations

### Questions to be answered

- Are you aware of IHR ?
- Legal Responsibility ?
- Designated Airports ?
- Trained Staff ?
- Equipment ?
- Training ?
- Table exercises?

### To Do List

- Procedures
- Checklists
- Entry Screening and
- Exit Screening
- Communication (national/int.)
- int. Network (ICAO, IATA e.g.)
- Modify present Emergency Plan

## Entry-Screening

- At the Apron before leaving the aircraft (inside the aircraft)
  - ◆ Personnel will check the passengers in every aircraft coming from affected or suspicious areas (medical staff and border police)
  - ◆ Subsequent Color Coding
- Subject to Coding\*
  - ▶ Pax is transmitted to designated medical services
  - ▶ Pax obtain medical information, further advices from the medical services or precepts
  - ▶ Pax proceed traveling (after obtaining personal data)

\* Will be done inside the aircraft before deboarding

# Colorcoding

- ✓ simple (KISS \*)
- ✓ cost effective
- ✓ being tested in HKG

\* Keep it super simple



Procedure with 4 color coding in Hong Kong (SARS)

Four busses for the different categories

- Red (Index)
- Orange (close contact)
- Yellow (social contact)
- Green (ok)



Identification of Passengers

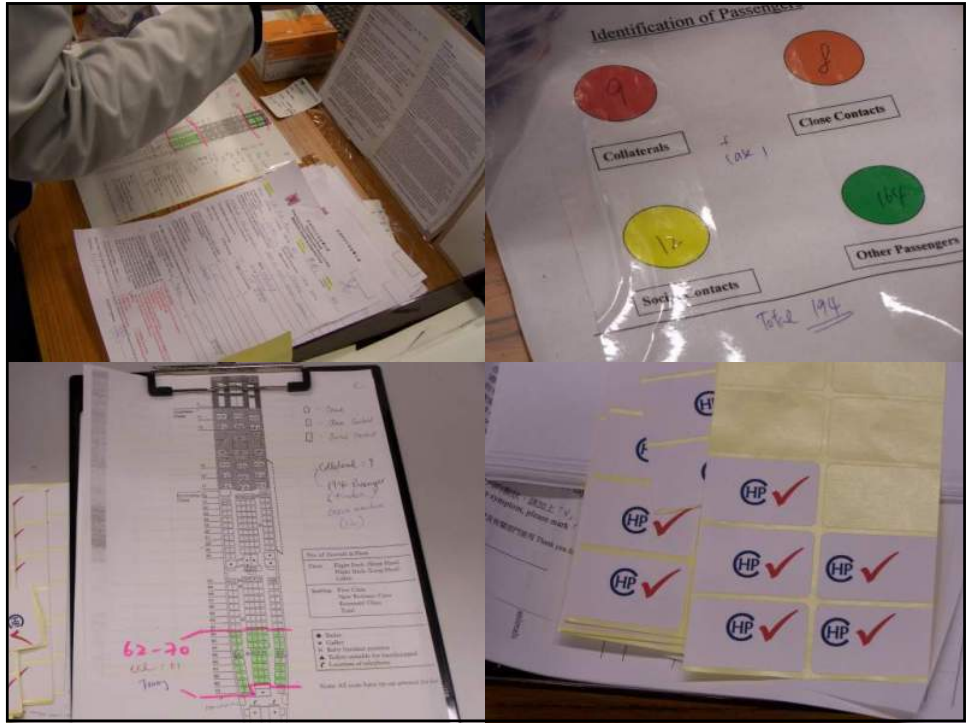
Collaterals + 1021

Close Contacts

Social contacts

Other Passengers

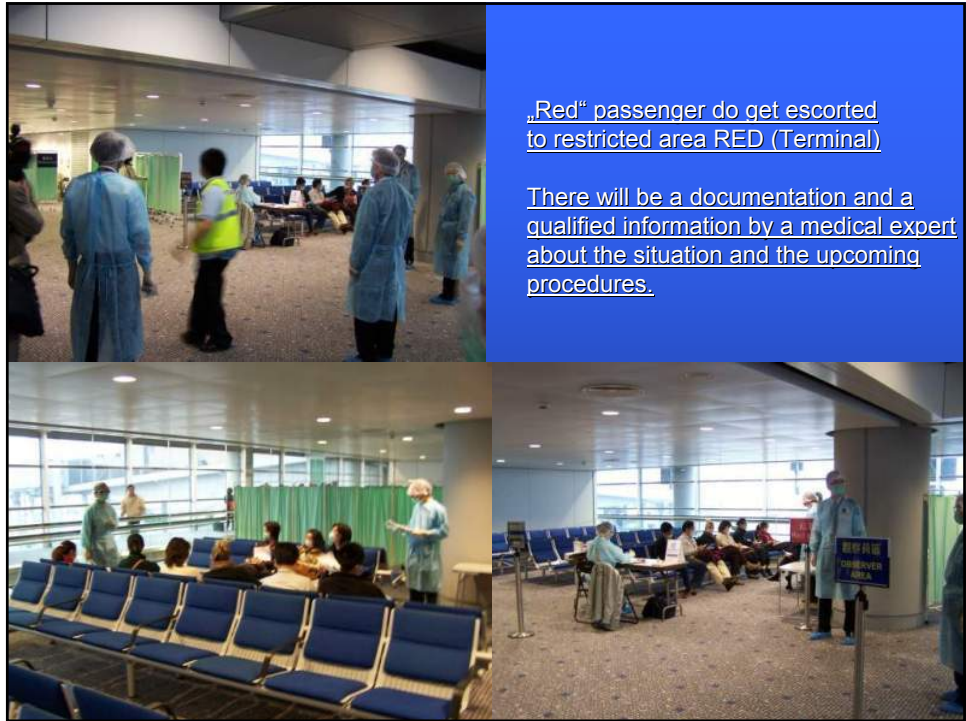
Table 194



### Possible Procedures (Entry and Exit Screening)

Thermo scanning and manual scanning  
In Hong Kong and Singapore for Entry  
and (!) Exit Passengers:  
Additional 2 employees per gate (!!).  
Temperature scanning also daily for  
Employees working at the airport.

(pictures being taken during the SARS program)



„Red“ passenger do get escorted to restricted area RED (Terminal)

There will be a documentation and a qualified information by a medical expert about the situation and the upcoming procedures.



STADT FRANKFURT AM MAIN

### Registration card

Dear passenger,  
 there is evidence, that on your flight may be a passenger with an infectious disease.  
 In order to protect you and to avoid any spread of this disease we would like to get the following data about you. Please fill in this form and hand it over to your flight attendant.

**Surname name:** \_\_\_\_\_ **First name:** \_\_\_\_\_ **D.o.Birth:** \_\_\_\_\_  
**Home address:**  
**Street:** \_\_\_\_\_ **Place:** \_\_\_\_\_  
**Your address within the next 10 days:**  
**Street:** \_\_\_\_\_ **Place:** \_\_\_\_\_  
**Tel.-No.:** \_\_\_\_\_ **Mobile:** \_\_\_\_\_  
**Origin of flight:** \_\_\_\_\_ **Destination:** \_\_\_\_\_  
**Flight-No.:** \_\_\_\_\_ **Seat-No.:** \_\_\_\_\_  
**Date of Flight:** \_\_\_\_\_ **Passport-No.:** \_\_\_\_\_

These data are exclusively used only in case you may have be infected during this flight. You will get informed and advised by us or your local health authority in case you are at risk. Otherwise the data will be cleared.  
 © Stadtgesundheitsamt Frankfurt am Main

# Triage and Registration

## Anhängekarten:

### ICAO Tag:

- ✓ International
- ✓ Civil
- ✓ Aviation
- ✓ Organisation
- ✓ Modifiziert, zum scannen

F 00001  
F 00001

BRANDIREKTION  
F 00001

NAME  
ADRESSE  
ARZT  
PHYSICIAN

0  
I  
II  
III

F 00001  
F 00001  
F 00001  
F 00001

Beleg für Krankenhaus  
Beleg für Rettungsmittel

DIAGNOSE  
THERAPIE

F 00001  
F 00001  
F 00001  
F 00001  
F 00001  
F 00001

0  
I  
II  
III

### Betriebsanweisung für Notfälle (NOT)

B Notfallverfahren Blatt 1 von 1

#### B 26 Infektionsabwehr

1. Verantwortlichkeit  
Die behördliche Verantwortlichkeit liegt beim Gesundheitsamt der Stadt Frankfurt am Main, bis zur Übernahme dieser Verantwortung vor Ort, werden die Maßnahmen gemäß Weisung des diensthabenden Arztes der Medizinischen Dienste durchgeführt, dieser ist Beauftragter des Stadtgesundheitsamtes.

Soweit eine Technische Einsatzabteilung zur Durchführung der Maßnahmen innerhalb der FAG gebildet wird, liegt deren Leitung beim diensthabenden Arzt der Medizinischen Dienste.

Die Verantwortlichkeiten des Grenzschutzamtes Flughafen gemäß §§ 2 und 14 BGGG und der Hessischen Polizei, gemäß § 1 HSGG, werden, untereinander abgeklärt, von diesem Behörden weitergegeben.

#### 2. Beteiligte Dienststellen

inter:

- Bodenverkehrsstelle
- Flughafenfeuerwehr
- Gesundheit und Soziales (Medizinische Dienste)
- Luftaufsicht
- Passagierbüro vom Dienst
- Presse und Publikationen
- Security Bereiche Terminal, Vorfeld, Frachtbetrieb
- Sicherheitsstelle
- Verkehrsleiter vom Dienst / Verkehrsleitung Flughafen
- alle FAG Dienststellen nach lageabhängiger Notwendigkeit

extern:

- Stadt Frankfurt, Gesundheitsamt
- Stadt Frankfurt, Branddirektion
- Luftverkehrsgesellschaft oder deren Handlungspartner
- Behördenvertreter der Dienststellen
- Grenzschutzamt Frankfurt Flughafen
- Hessische Polizei, Polizeidirektion Flughafen
- sonstige Behörden / Einrichtungen nach lageabhängiger Notwendigkeit

Gültig ab 15.12.2020  
Ersteller V18/19/6, Tel 69332  
Freigegeben V18/19/6

Konzeption: Sabina Andrusch  
Freigegeben: V18/19/6

## Emergency Procedures B26

### Infectious diseases

Frankfurt International Airport / Germany

### Protective Equipment Frankfurt Airport



### Storage of the protective equipment in the ambulance cars

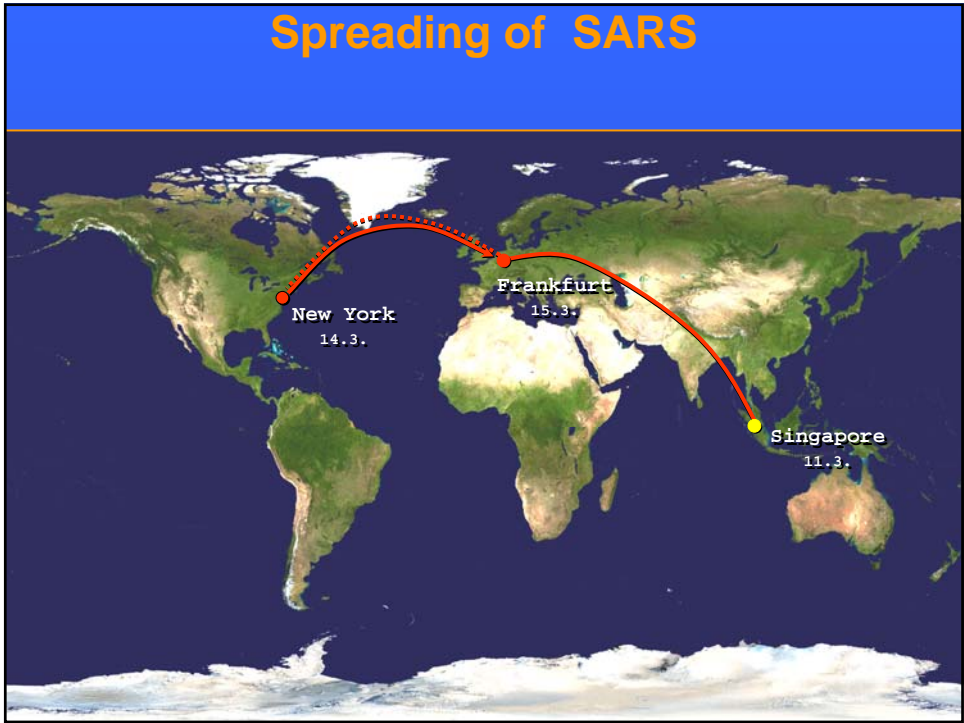


## Protective Equipment Medical Services Fraport



## Isolation Unit Airport Clinic Frankfurt





First cases of SARS arriving in Frankfurt



Frankfurt am Main, 15. März 2003

Infected patient (SARS) leaving aircraft



Transport to the University Clinic



University Clinic Frankfurt Germany



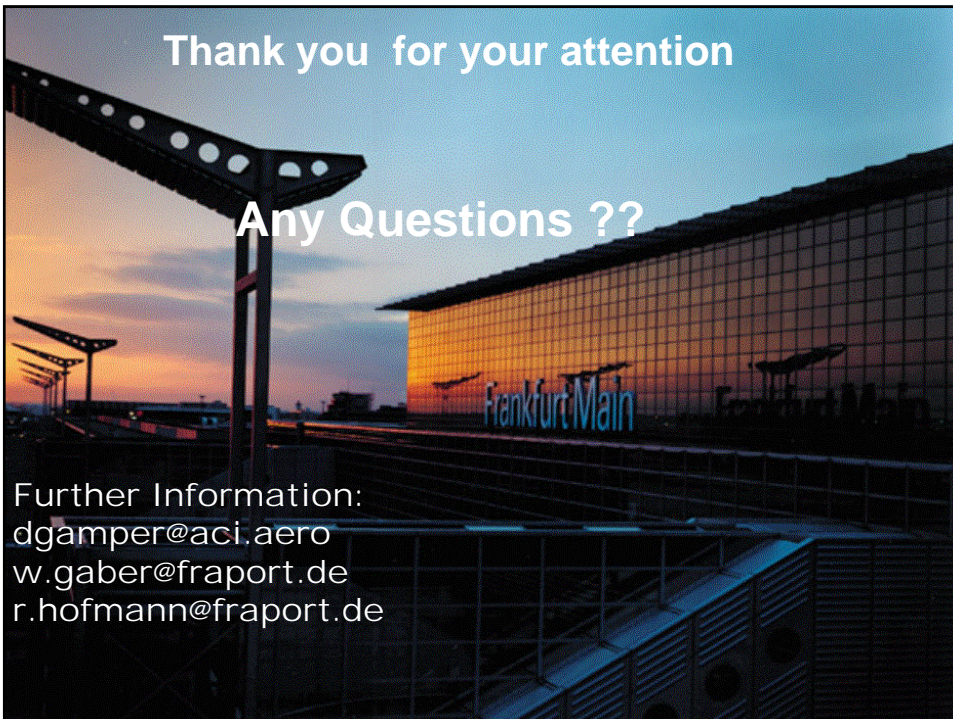
**We don't want to travel this way**



**Be aware and prepared.**

**Thank you for your attention**

**Any Questions ??**



Further Information:  
[dgamper@aci.aero](mailto:dgamper@aci.aero)  
[w.gaber@fraport.de](mailto:w.gaber@fraport.de)  
[r.hofmann@fraport.de](mailto:r.hofmann@fraport.de)