

POSSIBLE GAPS IN THE CAPSCA PROGRAMME

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Possible Gaps

- ▶ REPATRIATION/HUMAN REMAINS
- ▶ AIR AMBULANCE STANDARDS
- ▶ UNIVERSAL PRECAUTION KIDS/PPE
- ▶ LEGAL RIGHTS OF FLIGHT CREW IN AN OUTBREAK
- ▶ TRAINING OF CHARTER AIRLINES
- ▶ DISINSECTION vs DECONTAMINATION
- ▶ BASIC INFECTION CONTROL
- ▶ TRANSPORTING OF SPECIMEN
- ▶ MEDIA COMMUNICATION/PROCEDURES



Troops in biohazard suits burying two victims of the Marburg virus who were not even known to have been infected. Evelyn Hockstein for The New York Times



INCIDENT



REPATRIATION



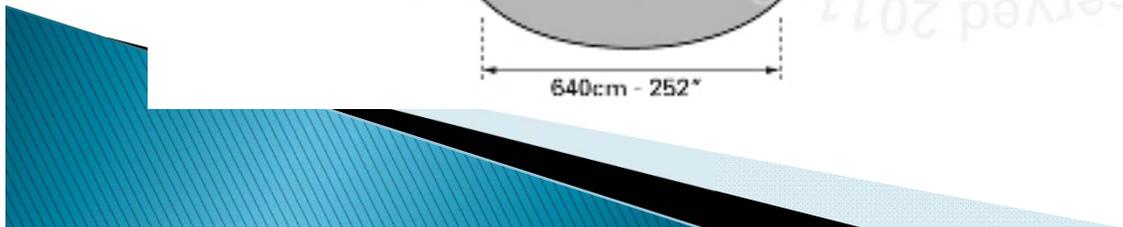
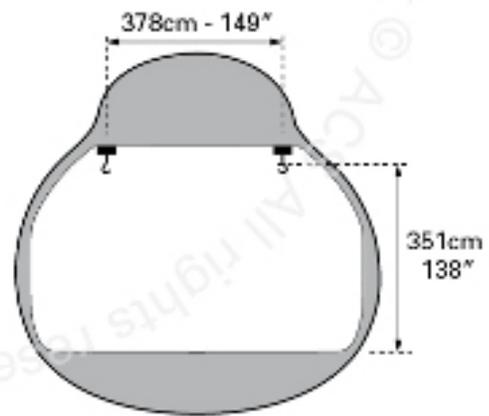
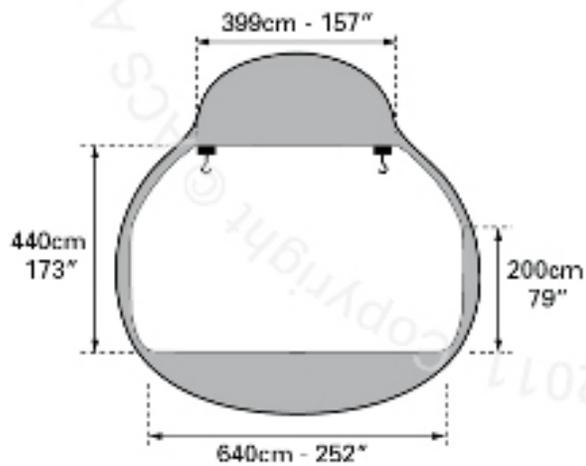
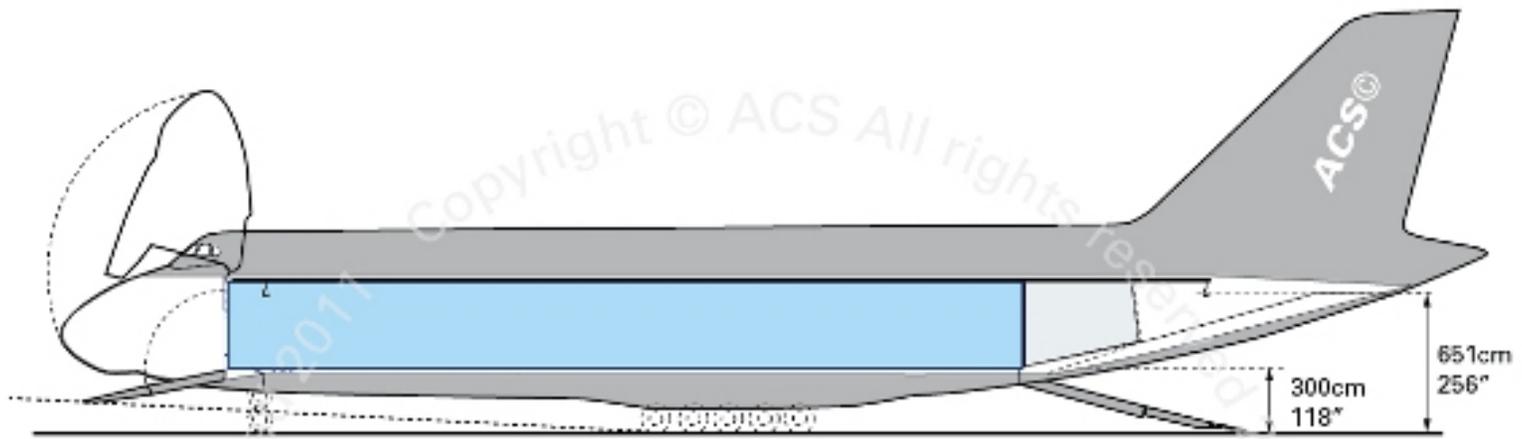
REPATRIATION

- ▶ 115 Bodies
- ▶ 85 Presumed South African
 - 37 Male
 - 48 Female
- ▶ 2 Children

- ▶ Body conditions
- ▶ Infection Risk
- ▶ 6–8 hour flight









BODY MANAGEMENT

- ▶ All bodies are managed as contaminated
- ▶ All bodies are sealed in triple body bags
- ▶ Each layer bags is decontaminated
- ▶ Mortuary/Mortuary trucks are cooled before loading
- ▶ Bodies are loaded and unit closed
- ▶ Mortuary / Mortuary truck re-cooled
- ▶ Transported back to RSA



SCOPE

- ▶ Option 1 : Body Bag and Truck Options
- ▶ Option 2: Coffin Option









REPRATIATION

- ▶ Mass Disaster
- ▶ Managed by Military & not civilian
- ▶ Single Body-Repratiation in the Civil Aviation Sectors
- ▶ General Guidelines from IATA-Transport of Human Remains
- ▶ Not Unique to Ebola
- ▶ If needed, lots of lessons can be learned from local Military



Role of Air Ambulance– SA only Accepting Citizens Ebola Outbreak



Lusaka September 2008

**Index patient: fever, rash,
sore throat, convulsions**

T/F to RSA ? Tick bite fever



Transport incubator –ISOS



What can be done?

- ▶ When to consider using the isolation unit?
 - Risk Assessment & Evaluation
- ▶ Particle Filter:
 - 0.3 μ m
 - $\geq 99.9995\%$
- ▶ SARS, VHF, TB...



Air Ambulance Case Study

- ▶ On 04/10/2014 23h07
- ▶ MO received call from one of the AMB from the continent
- ▶ To evacuate a sick passenger with a diagnosis of Sickle Cell Anemia



Air Ambulance Case Study

- ▶ Passenger was febrile, temp 38,2 C
- ▶ Jaundiced, pale, petechial rashes and ecchymosis
- ▶ Blood results: Hb 5,3; Plat 15; WCC 14,8 Absolute lymphocytes 72 %
- ▶ LFT: Total Bili 7,8; Direct Bili 3,1; AST 358; ALT 109; GGT 235; ALP140
- ▶ Ebola Negative PCR & Blood cultures no growth



Air Ambulance Case Study

- ▶ Applied for the certificate while in another country.
- ▶ Ports Health was informed about the landing of the aircraft.
- ▶ Isolated of the aircraft
- ▶ Until a Humanitarian decision was made to accept the patient.
- ▶ Negative Ebola
- ▶ Concerns Media leak



Air Ambulance Case Study

- ▶ Pre-Approval process patients not complied with by foreign operators.
- ▶ Immediately drafted a NOTAM-FOC,ATC,Ports Health ATC
- ▶ Agencies Not Regulated-Distributed all Material ICAO/IATA Material
- ▶ Air Ambulance-ICAO No Standards



Air Ambulance Case Study

- ▶ ? Other CAA in the continent are regulating Air Ambulances
- ▶ Wether they complied with other standards(Eurami,ect)
- ▶ We do not have a list of Operators in the continent to provide information



Air Ambulance Case Study

Areas Concern

- Air Ambulance Risk-SA
- Difficult to enforce non-ICAO Standards
- Lack of ICAO Standards
- ?Acceptable Equipment
- Operator vs Medical Requirements-Gap
- Opportunity Develop Standards
- Operator Fail to Disclose & Non-Compliant Operators
- Newer Air Ambulances -Standards Requirements



PPE/UNIVERSAL PRECAUTION KITS

- ▶ Focus on health care workers Ebola, what about cabin crew–Nigerian Case
- ▶ Is there a risk of aviation personnel getting infected Ebola?
- ▶ The risk on-board an aircraft is low
- ▶ Is the current protective equipment sufficient for all infectious cases?
- ▶ Or should the content be reconsidered–Based on Case Definitions



Operator Protective Equipment CC



Universal Precaution Kids-Specific Disease

- Dry powder that can convert small liquid spill into a sterile granulated gel.
- Germicidal disinfectant for surface cleaning.
- Skin wipes
- Face /eye mask(separate or combined)
- Gloves
- Non-Mercury Thermometer



PPE Training & Types of Gloves Used



Practice point: Visible exposed skin under glove needs to be corrected



Outer gloves correctly covering the sleeve



Operator Protective Equipment CC

- The Operator is flying to a particular destination in West Africa
- Operator's complied with the Universal Precautions Kids, Drs Bag, First Aid Kits
- Valid Concerns
- The gloves were not fitting properly
- Tearing & Training
- CAA our office was concerned about the panic that the PPE would create on the on board an aircraft
- Draft a procedure for the Pilot in Command Re-assuring the passengers



LEGAL RIGHTS OF FLIGHT CREW

- Trained Health Care workers refuse to work due to fear of being infected.
- What about Flight Crew
- Despite continuous education & awareness
- Providing protective equipment
- Volunteers & Business Continuity
- Based on risk, fear, can flight crew refuse deployment to affected areas?



Disinfection vs Decontamination

 **AUBURN**
UNIVERSITY

Featured Story
Office of Communications & Marketing

INFORMATION FOR: **CAMPUS COMMUNICATORS** FACULTY MEDIA

Auburn Home > OCM Home > Featured Story > Auburn researchers say harmful bacteria can survive for a week inside airliner cabins



Auburn researchers say harmful bacteria can survive for a week inside airliner cabins

Disease-causing bacteria can linger on surfaces in commercial airplane cabins for up to a week, according to an Auburn University study presented this week at the annual meeting of the American Society for Microbiology.



Kiril Vaglenov, a graduate student in Auburn's Department of Biological Sciences, conducted a two-year study—funded through the Federal Aviation Administration's Airliner Cabin Environmental Research Center—to determine how long *E. coli* O157:H7 and methicillin-resistant *Staphylococcus aureus*, or MRSA, would survive on commonly touched surfaces under typical airplane conditions. A major airline carrier supplied researchers with material from armrests, plastic tray tables, seat-pocket cloth, window shades and metal toilet buttons.

"Our data show that both of these bacteria can survive for days on these surfaces, particularly the porous material such as armrests and seat-pockets," said Vaglenov. "Air travelers should be aware of the risk of catching or spreading a disease to other passengers and practice good personal hygiene."

In order for bacteria to be transmitted from a cabin surface to a person, it must survive

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Related Links

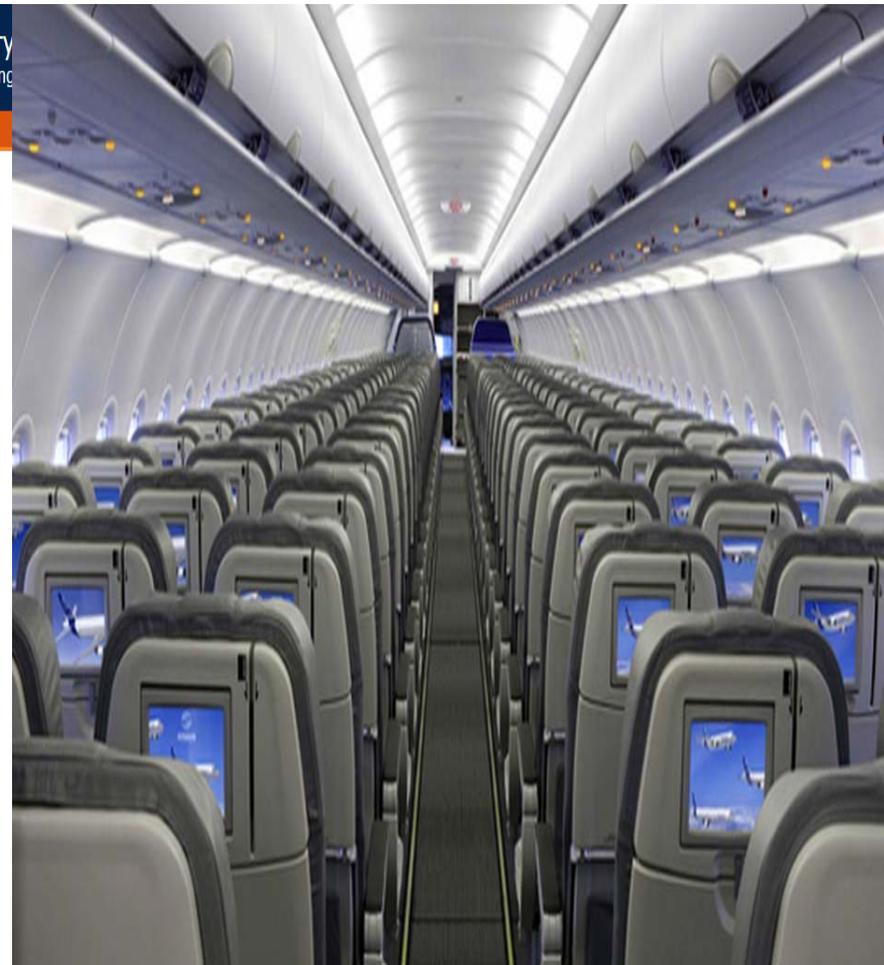
- ▶ College of Sciences and Mathematics
- ▶ American Society for Microbiology

Current News

Auburn's Aquaponics 101 workshop will give teachers new way to bring science into the classroom
5/30/2014

Auburn University opens unique, world-class plasma physics research laboratory today
5/29/2014

Auburn veterinary camps offer youth chance to experience profession

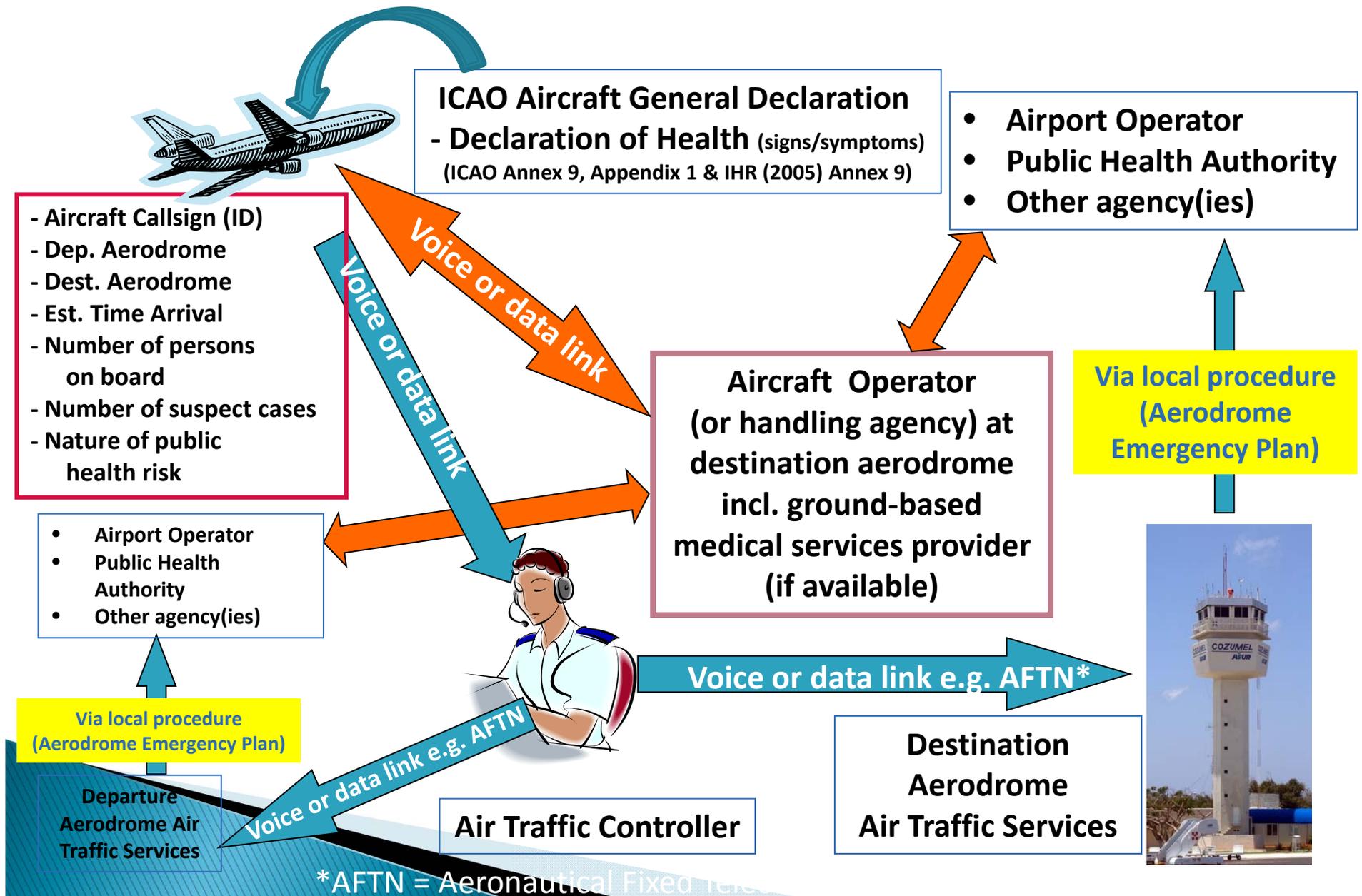


Current Guidelines Disinfection Aircraft

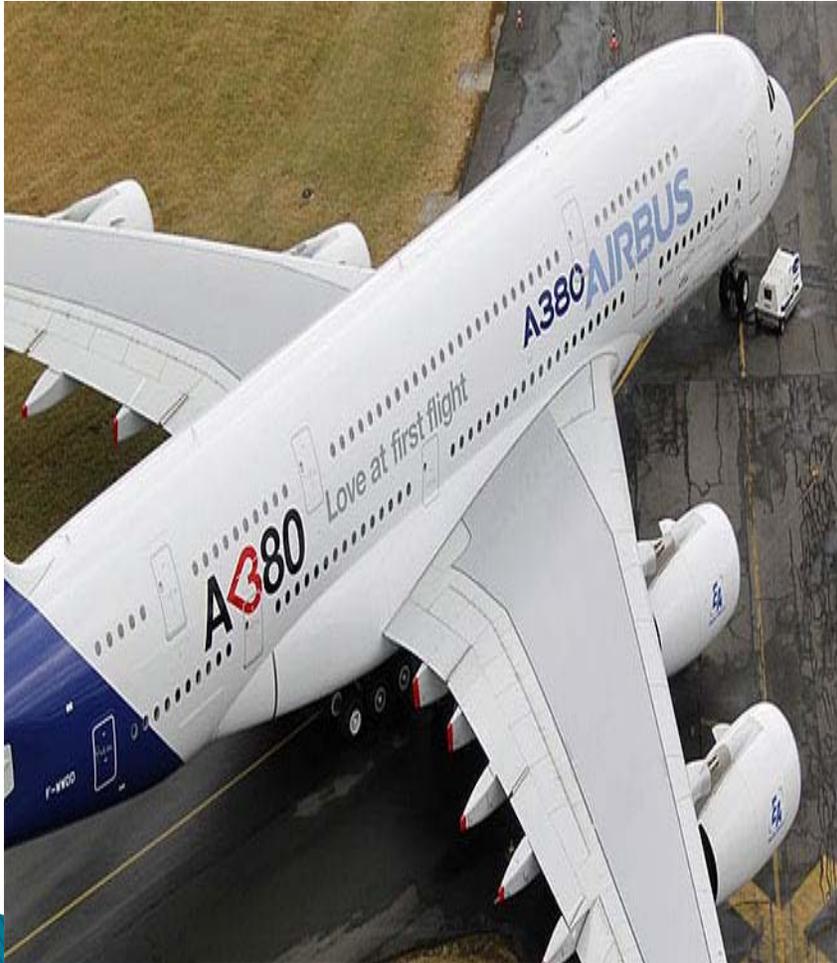
- ▶ WHO Guide to Hygiene and Sanitation
- ▶ Relationship between agents & DOH
- ▶ Using Recommended Practices
- ▶ Ebola case–Aircraft may have to be Diverted for Decontamination Military
- ▶ Criteria was not clear–? Death Bleeding



TRAINING OF CHARTER OPERATOR PILOTS



Medical Waste Management



OTHER ISSUES

- ▶ Transport of Specimen
- ▶ DOH/Aviation Processes(Annex 18)



Flight Crew & Airports Staff Trained Basic Infection Control



1

Remove all jewelry and wet hands with warm water



2

Apply soap to hands



3

Rub hands together



4

Cover all surfaces of the hands and fingers



5

Clean knuckles, back of hands and fingers



6

Clean the space between the thumb and the index finger



7

Cover the fingernails by working the fingertips into the palm



8

Rinse well under warm running water



9

Dry with a disposable paper towel, then use the towel to turn off the tap

Use soap: Using water alone does not remove soil and grease which can trap unseen germs and viruses.

Wash your hands for at least **15-20 seconds** using the following steps.

Total duration of the entire procedure is **40-60 seconds**.

TRAVEL BAN vs TRAVEL RESTRICTION



THANK YOU

