

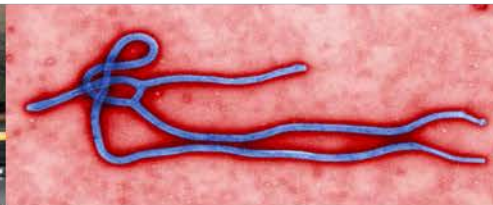
# 6th Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) Meeting

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## PREPARATION FOR CASEVAC OF EBOLA PATIENTS

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# Scenario

## WFP Requirement (Liberia) June 2014

- Medium lift helicopter operation
- Support ongoing food-aid
- Transport of WFP personnel to rural area's
- CASEVAC of WFP and allied workers suspected, possible or confirmed cases to regional clinics
- Transportation of medical specimens to laboratories



# Preparation

- Legal challenges
  - No guidelines.
  - No regulating central authority.
  - NDOH unprepared and taken by surprise.
  - Local CAA has authority over ZS registered aircraft but SA NDOH has no authority in foreign territories.



# Curve ball

- Initially NDOH refuses to allow South African citizens to assist
- UN requests South African govt to take EBOV+ patients NDOH refuses

Risk Group (RG)	Agent Risk Description	Examples
RG-1	Agents that are not associated with disease in healthy adult humans	<i>Bacillus subtilis</i> , <i>Escherichia coli</i> K12, adeno-associated virus (AAV)
RG-2	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are <b>often</b> available	<i>Staphylococcus aureus</i> , <i>Salmonella</i> sp, Herpes simplex viruses, Adenovirus
RG-3	Agents that are associated with serious or lethal human disease for which preventive or therapeutic interventions <b>may be</b> available	<i>Mycobacterium tuberculosis</i> , <i>Bacillus anthracis</i> , HIV
RG-4	Agents that are likely to cause serious or lethal human disease for which preventive or therapeutic interventions are <b>not usually</b> available	Ebola virus, Marburg virus, Lassa virus



# Who knows what to do?

- Military CBRN (Chemical Biological Radiological Nuclear) Units



- Focus is National Defence not international assistance

# Who else?

- WHO
- CDC
- MSF
- <http://www.cdc.gov/vhf/ebola/healthcare-us/ppe/guidance.html>
- <http://www.capsca.org/EbolaRefs.html>

# Risk mitigation

- Develop tropical disease risk mitigation strategy:
  - Crew inoculations (everything)
  - Malaria prevention (not negotiable)
  - Line station security:
    - Hand washing stations
    - Routine cleaning of common living area's
    - Food security
    - Man management (human behaviour adaption)
    - Crew monitoring measures





# Patient movement

- Exposure within 72 hours?
- Asymptomatic easier to move (and safer).
- Crew training and special PPE.
- Specialised equipment required.
- Emphasis on decontamination and PPE Don / Doff skills.



# Contain the patient



# Compartmentalise the cabin

- Separate entry / exit for aircrew vs medical crew.
- Patient compartment requires a buffer between medical deck and flight deck.
- Body fluid disposal (isolated toilet for patient.)
- Spill kits at the ready.
- One person dedicated to close contact protocol.
- Rehearsed rolls and responsibilities.

# Equipment risk

- Oxygen rich bubble made of plastic.
- Crew wearing plastic / nylon PPE.
- Flammable items used for screening.
- Alcohol cleaning agent is highly flammable.
- Chlorine cleaning agent is highly corrosive.

# Decontaminate

- Alcohol is the only aircraft friendly cleaning agent.
- Safe disposal of consumables and proper terminal cleaning protocols must be enforced.
- Highest exposure risk during the PPE doff and decon cleaning.
- Minimise the persons at risk.
- Ebola PPE is not exactly Africa temperature friendly (Associated risks of dehydration, heat-stress and related lapses in judgment)

# Document

- All normal patient management documents.
- All contacts and contact tracing information (crew and patient).
- All equipment exposed / decontaminated / disposed.
- Any protocol breaches no matter how small.
- Debrief all crew and document all aspects of the mission.

# Special precautions

- Sufficient support during all phases of the mission.
- Develop local policies for self rescue if aircraft experiences technical issues during the mission.
- Ensure all authorities are in the loop. Communication is essential.
- Only dispatch once all agencies are ready for the mission.

End