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## A New Approach to Reducing In-Flight Health Risks



*A glimpse into the need for effective sanitization and hygiene in aircraft cabins.*

The advent of highly infectious diseases such as H1N1, MERS, SARS, Ebola, Zika, amongst others, brings tremendous health risks to mankind. The spread of such diseases has become a major problem for the affected countries across the world – resulting in several lives being lost and the economy of these countries being impacted adversely. Modern technologies often fall short when it comes to preventing and containing the spread of such diseases, which on several occasions have reached pandemic proportions in recent times.

### The threat

Air, sea and land transport have made great advancements in the last century. The efficiency and speed with which people are transported from far and wide is staggering. Increased air traffic exponentially multiplies the potential spread of communicable diseases much farther in a much shorter time. Thus, incidents of pandemics have risen at the turn of the 21st century. SARS, for example, spread to three continents in less than four months. A hospital in Hong Kong reported 50 patients infected in a



Photo courtesy: ALMADION International

matter of hours. The lack of containment measures transported Ebola across countries in Africa. Some viruses evolve into strains that become more resistant to established cures. Continuing diaspora from one continent to another due to armed conflict even increases the threat of mass transmission of infectious diseases. Military aircrafts on flight missions are not exempt from risks against infectious diseases. Mercy missions such as 'medevacs' require even higher measures of decontamination to ensure that casualty evacuations are accomplished without risk of infection. Mass transport terminals are hubs where human traffic converges in large volumes; therefore, it is prudent to keep them safe from health risks. Appropriate disinfection protocols must be instituted in these metropolitan crucibles.

### Worldwide awareness and response

International aviation bodies like ICAO (International Civil Aviation Organization) set the 'Pandemic Response Coordination' as one of its global priorities. In response to the need for measures to prevent worldwide spread of communicable diseases, ICAO adapted Article 14 of the Chicago Convention (Convention on International Aviation, 1944). This was highlighted in a multi-sectoral meet, organised through CAPSCA (Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation). At the Second AFI Safety Symposium held in Mabuto Mozambique, 20-21 May 2015, international, regional, national and local organisations were brought together to combine efforts and develop 'a coordinated approach towards effective measures to prevent the spread of highly communicable diseases'. It was proposing 'that member states should keep



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close consultation with concerned agencies and international regulations relating to sanitary measures applicable to aircraft'.

One such measure is the introduction of the 'cabin disinfection protocol' separate from standard cabin cleaning. However, information and adaptation of these solutions as a standard operation procedure amongst airlines are slow to cascade down to the grassroots. Many airlines are still unaware if not simply oblivious of these measures and their extreme importance for immediate implementation. There is a need for a stronger push towards information drive and adaptation of the cabin disinfection protocol in the aviation industry even to maritime and other mass transport systems.

### Immediate solutions

On their own, some airlines have realised that simple cabin cleaning is no longer adequate to provide enough appropriate hygiene, sanitation and protection against health risks due to in-flight contamination. Thus, a new 'pre-flight cabin disinfection protocol' was added to their standard cabin cleaning operations. The growing number of airlines adapting cabin disinfection as a standard pre-flight protocol underscores the importance of keeping its passengers and crew safe from being infected during the flight. The practice has since been extended down to the cargo hold to ensure that everything loaded and off-loaded from the aircraft are free from contamination. Moreover, airport authorities around the world are even encouraged to implement disinfection

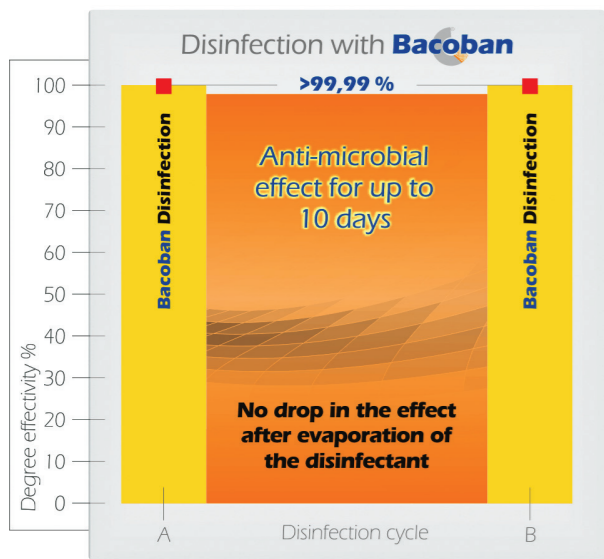


Photo courtesy: ALMADION International

protocols at the airports, for what best way there is to stop the spread of diseases other than at the points of entry and exit, "right at the very gates where passengers board and disembark the aircraft".

**ALMADION's contribution**

As a leading supplier of disinfection solutions, ALMADION International is one amongst those at the forefront of the campaign towards best practices in hygiene and sanitation. For several years now, ALMADION has been making a strong drive into high level decontamination and disinfection protocols. It has been closely coordinating with its customers in the healthcare, hospitality, and transport industries to keep highly infectious disease carrying pathogens at bay by making hygiene and sanitation a priority protocol. The main focus is on prevention of the spread of communicable diseases via commercial aircrafts and other mass transport systems.

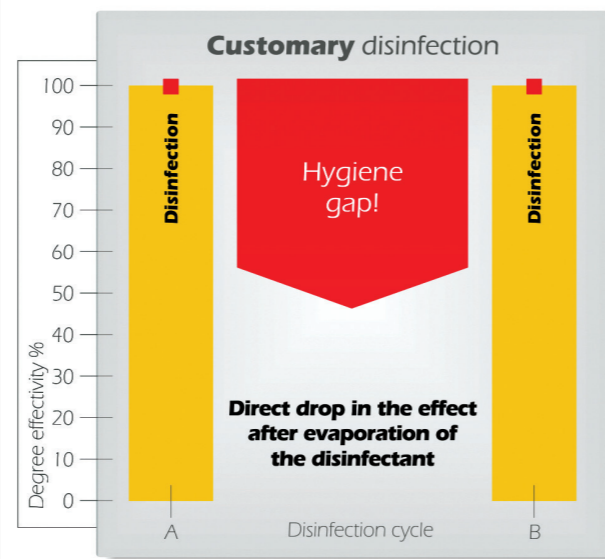


Towards this effort, ALMADION introduced Bacoban® - a Nanotech formulated, water-based, long lasting surface disinfection solution into the aviation industry in 2010. Since then, the company has kept up the drive against the rapid spread of diseases through air transport by making Bacoban® available to airlines, and training workers and cleaning crews in the proper way of disinfecting aircrafts. ALMADION went a step further by offering an On-Site Aircraft Hygiene and Sanitation Audit Service.

The purpose of this audit is to determine the level of cleanliness, hygiene and sanitation inside the aircraft prior to flight. The audit is conducted on a scheduled regular basis or at random upon the instance of the airline management and administered by competent technicians. The process is simple and can be accomplished on site inside the aircraft within minutes. The specimen is lifted by swabbing at different spots inside the cabin and cargo hold and then processed 'on site' using a handy portable machine called a 'luminometer'. The luminometer makes a reading on the amount of contaminants present indicating whether the aircraft is clean and well sanitised or not. An additional benefit of such an audit is that it also determines the kind of cleaning job done on the aircraft; accordingly corrective measures can be taken wherever required.

**Reduce in-flight health risks**

After each trip, the aircraft cabin is always a mess! Food crumbs litter the floor and the meal trays are stained with spillage from coffee, juices and food. Passengers leave the arm rest, head rest, side walls with oily residue; the galley needs cleaning up; and the lavatories are all used up.



Bacoban® is applicable on practically all types of surfaces. It is a must on surfaces and items with which passengers frequently come in contact - like the touch screen and remote control entertainment devices, arm rest, meal tray, and overhead compartment. Bacoban® provides maximum protection on galley counters and the floor, trolley compartments where food is prepared; bulkheads, lavatory doors, crew rest area, spa and lounge for the first and business class passengers, as well as the cockpit. It is also advisable to disinfect the food trolleys prior to boarding the aircraft. Bacoban® may be sprayed directly on the surface and then wiped off with a clean anti-static wipe, or sprayed onto a clean cloth or anti-static wipe and wiped on the affected surface, or applied by means of fogging as in the cargo hold. This practice ensures full sanitation and hygiene within the cargo hold.

Maintaining hygiene and sanitation in-flight is a different story. A myriad of things can happen on board while the aircraft is air borne. Air sickness and the resulting mess is a common challenge for the flight crew. Liquids spilling over when the ride gets rough is another problem flight attendants need to immediately attend to. Such incidents are now easily taken care of with Bacoban® Pre-Moist Disinfection Wipes. As it has active biocide and cleaning properties, it may be applied during Mini Deep Cleaning and Heavy Duty Maintenance and most importantly during turn-around cleaning

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to get the aircraft ready for the next set of passengers. The best thing about Bacoban® is its ability to stay potent for a much longer time than most disinfection solutions thus 'bridging the hygiene gap in between applications'.

This unique feature increases protection while air borne and decreases the potential for recontamination in multiple destination flights. Bacoban® is probably one if not the brightest solution to in-flight infection control available today.

ALMADION is always on the watch out for opportunities to help and support client companies in the containment of infectious diseases and prevention of spread through air, sea, and other mass transports. It has joined exhibitions like 'Clean Middle East Pulire' and other fora that provide international exposure to promote proper hygiene, sanitation, & disinfection protocols. It will be active in participating in symposia or conventions that aims to promote worldwide concerted effort to curb the spread of infectious diseases and reduce incidents of plagues and pandemics, making this world a better and safer place to live.



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