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: Civil Aviation Security, Biodefense, Bioterrorism, Biothreats, Acts of Unlawful Interference

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Recently, threats to civil aviation by terrorists and other acts of unlawful interference have intensi ed[1], thus necessitating the international community to develop legal and regulatory regimes to combat threats to civil aviation.

Towards the end of the second world war, at the instance of the United States of America (USA), the international community met at a convention held in Chicago to design an e-ective legal instrument to govern international civil aviation[2]. e-meeting which held in 1944 led to the adoption of the Convention on International Civil Aviation (also known as e-Chicago Convention) by y-two (52) of the y-four (54) States invited. erea er, establishing the International Civil Aviation Organization (ICAO), which had as its objective, to facilitate the safety and orderliness in navigation of commercial air transport and to provide uniform standard across board [3,4].

ICAO, a specialized agency of the United Nations (UN) was responsible for coordinating international travels[2] and facilitating the safety and navigation of international civil aviation, as well as the provision of uniform standards across borders[5]. It develops the legal (in the form of multilateral conventions, declarations and resolutions) and technical (in the form of Standards and Recommended Practices [SARPs] and the Universal Security Audit Programme [USAP]) measures to combat and prevent intentional acts against civil aviation.

e Chicago Convention however had no explicit declaration regarding unlawful interference[2], as primary Contracting States were, at the time, primarily responsible for developing international civil aviation in a safe and good manner, by establishing international air transport services on the basis of equality of opportunity, as well as operating the services peacefully and economically[6]. As the threats to civil aviation began to rise Member States, have met over the decade at various conventions to develop, ratify and adopt legal resolutions and declarations on countermeasures to combat threats to civil aviation.

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e Global Terror Database (GTD) de ned a terrorist attack as, "the threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation" [7]. ough there has not been an

established de nition of terrorism, there is however, a consensus that the concept involves an intentional act of the use of threats of violence to achieve set goals of the attackers[8]. erefore, for an attack to be classi ed as a terror attack, it must be intentional, involving a threat of violence or an actual act of violence against an entity, to coerce and intimidate a victim with the aim of achieving religious, economic, social or political objectives[7].

While threats to civil aviation have predominately been those involving armed attacks, potential bombing of aircra s and other civil aviation infrastructures, hijacking, terrorists have also resorted to the use of Man Portable Air Defense Systems (MANPADS), use of Liquids, Aerosols and Gels (LAGs), and cyber-attacks against civil aviation operations and facilities[1]. However, potential future threats exist, including the use of dangerous and contagious biological agents as weapons against civil aviation. With the global pandemic of COVID-19

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weapons, amongst other materials, for the purpose of terrorism against navigational aids and facilities[21].

ICAO is also mandated to develop technical countermeasures in the form of Standards and Recommended Practices (SARPs) and Universal Security Audit Programme (USAP). Annex 17, which is the ICAO annex for Security, to safeguard international civil aviation against acts of unlawful interference was rst adopted by ICAO during the Extraordinary 17th Assembly in 1974[2].

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transmission of any contagious disease resulting from a bioweapon attack[20]. Hoyt and Brooks recognized the importance of vaccine development in the reduction of bioterrorism, noting that vaccines were central to the defense strategy, especially in protecting surrounding populations from secondary spread of infections[16]. Furthermore, the contingency plan will include decontamination and sterilization procedures of the site of the attack, as it will be necessary to ensure that operations are not grossly disrupted.

In order not to create panic in the industry and the public, a risk communication strategy should be developed to timely communicate to the relevant stakeholders and general public to raise awareness on the measures to limit collateral damage.

Bioterrorism also has the advantage of anonymity, as the weapon of the attack cannot be detected using existing screening equipment. Countermeasures, material, and human resources should be available at all airports serving civil aviation for the detection and containment of biothreats, as an attack at any airport could have a global impact.

iothr4020uthr(each)of)120VII(h)149 (ach)exposed a major vulnerability of civil aviation in detecting, preventing, and containing a biological outbreak much less an intentional attack. is de ciency deserves urgent attention, including new legislation, regulations, programmes and countermeasures. Manpower development remains cardinal to achieving the goals of a patient hiedeform region for the country, a government need to to 1010.