Thank you for providing the ConOps document. Based on the information provided, here is the first step of the STPA method as the result of the analysis:

Losses

L-1: Loss of life or injury to people (e.g., pilots, ship captains, drivers, passengers) L-2: Loss of or damage to vehicle (e.g., aircraft, ships, land vehicles) L-3: Environmental damage (e.g., oil spills due to marine navigation errors) L-4: Loss of mission (e.g., failed delivery of cargo, failed scientific mission) L-5: Loss of reputation (e.g., damage to credibility of GNSS receiver manufacturers) L-6: Financial loss (e.g., increased insurance premiums, litigation costs) L-7: Loss of regulatory compliance (e.g., sanctions or penalties from aviation and marine authorities)

System-Level Hazards

H-1: GNSS receiver provides inaccurate position data [L-1, L-2, L-3, L-4] H-2: GNSS receiver fails to detect faulty satellite signals [L-1, L-2, L-4, L-6] H-3: User is not alerted to integrity issues in real-time [L-1, L-2, L-3, L-4, L-6] H-4: Inadequate redundancy leads to loss of GNSS signal [L-1, L-2, L-4] H-5: RAIM system does not comply with regulatory requirements [L-7, L-5]

System-Level Constraints

SC-1: GNSS receiver must provide accurate position data under all conditions [H-1] SC-2: GNSS receiver must reliably detect and exclude faulty satellite signals in real-time [H-2] SC-3: Users must be alerted immediately to any integrity issues detected [H-3] SC-4: System must ensure continuous GNSS signal and switch seamlessly between satellite constellations [H-4] SC-5: RAIM system must comply with all relevant regulatory requirements and standards [H-5] SC-6: If GNSS receiver provides inaccurate position data, measures must be taken to correct the position or alert the user [H-1, H-3] SC-7: If faulty satellite signals are not detected, the system must attempt to revalidate signals and alert the user to the risk [H-2, H-3] SC-8: If a GNSS signal is lost, backup navigation methods must be used and the user must be alerted [H-4]

This covers the definition of the purpose of the analysis, including the identification of Losses, System-level Hazards, and System-level Constraints as you requested.