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G-NIUS Switzerland Inc.
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The human being remains the weakest link in military aeronautics. One paramount difficulty is to maintain sufficient brain oxygenation under the incredible physiological and mental constraints to which fighter pilots are subjected. The G-forces generated by modern aircraft during any manoeuvres are still too frequently cause for accidents leading to the loss of aircrew and aircraft.

ALL classical G-protection systems are still based on a simple anti-G bladder Compression Principle dating back to the mid-1940s without much change. These classical G-protections are only able to maintain minimal oxygenation to the brain. To try to improve the 1940's design, bladder surface was sometimes increased for only a small gain in G-protection. However increasing bladder surface increases thermal burden and dehydration dramatically, reducing physiological and mental aircrew capacity further.

In stark contrast, combat jets have evolved enormously since the mid-40's, yet only minor improvements have been made to increase aircrew protection, safety and efficiency – until NOW.

G-NIUS Switzerland, with the help and support of renowned Chief Flight Surgeons, has developed a much more efficient "Pneumatic Muscles" anti-G Compression Principle covering a small body surface yet allowing Full Body Compression. G-NIUS's unique, simple yet revolutionary Compression Principle maintains nearly normal blood flow and oxygenation to the brain under any G-forces, requires no anticipation, no absolute AGSM nor PBG, and allows for voice recognition and communication under G.

G-NIUS's G-protection Systems were extensively tested in biometrically surveyed Air Force studies, as stand alone or pitted against industry standard G-protections, in 9 centrifuges worldwide. A very broad spectrum of candidates were selected, aged 22 to 59 and from nil to several thousand flying hours experience. G-NIUS's unique "Plug-in and Fly" G-Protection Systems, in Full Body G-Suit or G-Pants versions, have proven to significantly increase G-protection level with less physical efforts and lower heart rate, increasing safety, efficiency and comfort in flight to a new level.

G-NIUS's G-protections and Aircrew Safety Equipment were already flown on RAFALE, Mirage, F-16, FA/18, Sukhoi-27, Mig-29, L-39, MB-339. Post-Covid tests will soon resume on Sukhoi-30, F-15 and Eurofighter.



G-NIUS has developed unique materials and techniques to produce very lightweight, efficient, secure and low bulk G-protection Systems, in either Full Body Suits or G-Pants versions.

Every G-Protection System is entirely produced in G-NIUS's 100% owned, spacious, modern and fully equipped manufacturing plant under stringent EN 9100 quality controls by highly experienced collaborators.

G-NIUS uses proprietary, ultra-lightweight, breathable, very resistant F.R. fabrics, and quick acting "Pneumatic Muscles", thus eliminating the shortfalls of classical G-protections systems. Both "G-RAFFE Smart G-protection" and "G-RAFFE Smart G-pants" offer unrivalled security, efficiency and in flight comfort.



G-NIUS is committed to manufacture and distribute these 5th Generation G-protection Systems, equally innovative Immersion Protection Garment and Cooling Systems, and a broad variety of Aircrew Safety Equipment with short delivery schedules and long term client satisfaction guaranteed.

All operational activities are managed from G-NIUS Switzerland headquarters in Eysins, a 10 minutes drives from the Geneva International Airport.



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