Our Unique Solutions:

**Stringers:** Construction methods which use stringers for aluminum or fiberglass boats require that the hull needs to be stronger than the solid it impacts. To date, when this stinger method is applied to a solid, namely ice, this is a physical impossibility long-term when weight and speed are added.

**Biondo Boats Unique Solution to the Stringer Problem:** We do not utilize stringers. Our patented Kevlar design is intentionally designed to flex (without fatigue) over a solid. The energy created when the boat hits the ice needs to be absorbed somewhere (it doesn't just disappear) so it is transferred and dissipated into airbags. This feature is patented.

**Strength:** Aluminum is not strong enough to sustain continuous impact with a solid. This is a historic problem.

**Biondo Boats Strength Problem Solution:** Kevlar is much, much stronger than either aluminum or fiberglass. On an even-weight basis Kevlar has 5 times the strength of structural steel.

**Flexibility:** Aluminum will flex, however, it will also fatigue quickly, leading to failure. Fiberglass is a better alternative than aluminum but inappropriate as a complete solution. Kevlar is far superior in this application because of the impacts that the boats have to withstand. The impacts require that the boats have strength and flexibility but without fatigue. Only Kevlar has these properties.

**Biondo Boats Flexibility Solution:** Our patented Kevlar solution (The same material in bullet proof vests) when used in conjunction with a special resin will flex at a rate that is 7 times greater than that of aluminum, without Fatigue.

**Impact & Abrasion:** All other airboat companies "bolt-on" an ultra-high-molecular-weight (UHMW) coating to their fiberglass or aluminum hulls to provide substantial impact and abrasion resistance. This technique requires hundreds of "Rigid" through-bolts that compromise the integrity of the hull. The "Rigid" through-bolts also do not flex, rather they serve as a "stress-riser" on the vessel's skin (Aluminum or Fiberglass) and ultimately cause the bond between the hull and the coating to fail.

**Biondo Boats Impact & Abrasion Resistance Solution:** We have a patented solution that bonds the UHMW to the hull without the use of mechanical fasteners. There are no "stress-risers" that will lead to failure under flex and more importantly there are not hundreds of holes compromising the integrity of the hull.

**Chines (Curvature of the Hull design):** All other airboat manufactures utilizing an aluminum solution do not achieve the curvature necessary to adequately maneuver impacts during a turn. This is especially critical when operating on a solid.

**Biondo Boats Unique Chines Solution:** Our patented design is best achieved with our composite solution. The vessel will safely manage a significantly broader range of impact scenarios without catastrophic failure.

**Engine mount:** All other airboat manufacturers utilize a "High-Engine Mount" creating an unnecessary and unsafe "High-Vertical Center of Gravity (VCG)". This fact in conjunction with poor hull design promotes a high possibility of "tipping" in a wide variety of "intended use scenarios".

**Biondo Boats Unique Engine Solution:** Our patented low-engine mount significantly reduces the VCG to the lowest possible point. This greatly enhances safety and performance of the vessel.

**Counter-Rotating Propeller system:** All other airboat manufacturers that utilize a counter-rotating propeller system are belt driven. Performance is reduced and maintenance is increased impacting reliability.

**Biondo Boats Propeller Solution:** We have the only Patented "counter-rotating propeller system" in the world that does not utilize a belt. The same maneuverability is achieved at 22% less engine RPM’s. This significantly increases range, reduces noise and reduces wear & tear on the engine, thereby reducing maintenance and increasing reliability.