"Full Thrust Ahead" !

Moving forward with the LCA (Navy)

NP1 arrested landing with max nose oleo compression

On 11-12 January 2020, the LCA (Navy) made its historic landing and take off respectively from deck of the Indian Navy's carrier INS *Vikramaditya* at sea. This was culmination of the many years of careful planning and rigorous testing of the aircraft and its systems at Bangalore and Dabolim, as detailed in this article which is based on first-hand interviews.

September 2019 was very significant, with seminal events taking place around Dabolim in Goa, shrugging off the unceasing rains during this year's monsoon, particularly this Friday the 13th which was surely an odd date for a most momentous event – the first arrested landing by an Indian-designed and developed aircraft. The trials themselves were over in a mere 15 seconds or so from the time the LCA (Navy) prototype two-seater aircraft, (NP-1), rolled out on finals at the Shore Based Test Facility at INS Hansa and 'called the ball' with 'Four Greens'.

Like all good flight test events, what followed was anti-climatic in that nothing spectacular happened : nothing broke, nothing caught fire, everything came rapidly to a halt and the pilot walked away with all ten fingers and ten toes intact.

To prove that this was no flash in the pan, the same exercise was repeated multiple times over the next few days, culminating in what was probably an even more complete demonstration of the rapid progress that this programme has made in recent months. On 29th of the same month, the other LCA(Navy) prototype, NP-2 demonstrated a complete cycle of the core essential of aircraft carrier operations by launching off the ski jump and 'trapping' at the arresting gear site.

NP2 exiting the ski jump ramp during a launch

Of course none of this happened by chance; in fact, quite to the contrary. Major achievements in aeronautics are often undertaken in a manner akin to climbing a formidable mountain. To ensure success, the ultimate achievement is broken into essential elements which are then tested and resolved in isolation. Only after all the different aspects are understood – and readiness for each has been convincingly demonstrated – is the final climb to the summit attempted. Being an absolutely pioneering effort in India, the ADA/NFTC design and testing teams have had to explore multiple hardware configurations and