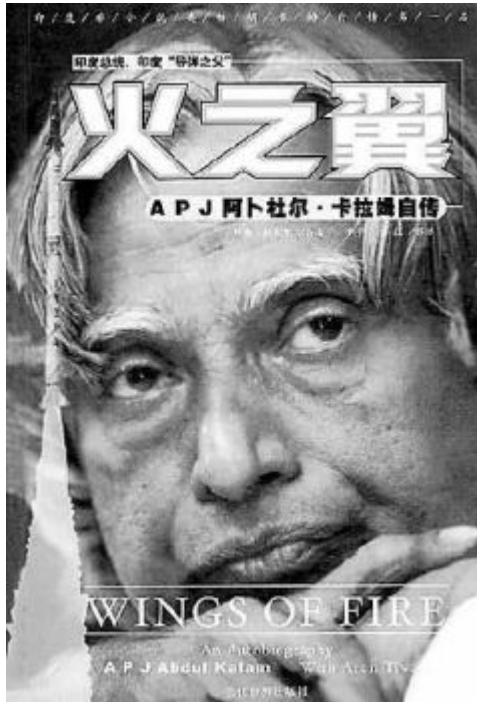


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**'Wings of Fire' to go online** By T. Lalith Singh

HYDERABAD May 15. Four years and 13 languages later, the popular autobiography of the President, A.P.J. Abdul Kalam, is all set to wing its way into newer horizons that include forays into the world wide web.

The e-version of 'Wings of Fire', the autobiography of Dr. Kalam done with Arun Tiwari, is set to be launched in the next couple of weeks. Once posted on the Internet, readers across the globe can browse the book and even download it. Targeted mainly at overseas readers and Non Resident Indians (NRIs), the entire autobiography, which surged on the popularity charts after Dr. Kalam assumed the highest office of the nation, can be downloaded at a cost of \$3.

"The website is almost ready and we are looking forward to have N.R. Narayana Murthy, chief of Infosys, launching it," says Madhu Reddy, Director, Universities Press which published the autobiography.

The Chinese edition of 'Wings of Fire', titled 'Huo Yi' and translated by Ji Peng, was launched last month in Beijing and the Korean edition is expected to be released in the coming months. The Universities Press is also working on an audio version of the popular autobiography apart from an exclusive children's version.

Mr. Reddy says an agreement was reached between the publishing house and the National Council for Promotion of Urdu Language for an Urdu translation of 'Wings of Fire' as well.

The autobiography first published in English in 1999, has so far been translated and published in 13 languages including Gujarati, Telugu, Tamil, Malayalam, Oriya, Marathi apart from Braille.

"We sold 1.25 lakh copies in English, around 60,000 in Tamil and another 40,000 copies of the Malayalam edition during the year 2002-2003 after he took over as the President," says Mr. Reddy. This, in sharp contrast to the sale of around 25,000 copies each year since the autobiography priced at Rs. 200 was published in 1999.

It is not just the book sales that are soaring, but more ideas too. Arun Tiwari, co-author of 'Wings of Fire' and long time associate of Dr. Kalam, is currently working on a book titled 'My Country, My People, My Leader'.

"I accompanied the President to some remote places in Arunachal Pradesh, Nagaland and Pondicherry. What I saw during those visits spurred me to come out with a new book," he says.

The book will focus on the 'real India which has been marginalised by archetypes and stereotypes'. "There is more to India than those symbolisms of Aishwarya Rai as a representation of Indian beauty and Sachin Tendulkar of Indian youth. This neglected essence of our contemporary times is what I intend to focus upon in my new book," Prof. Tiwari, a missile technologist-turned author, says.

The book, as the title suggests, is about India, Indians and Dr. Kalam. "It will try to give more insights into the personality of Dr. Kalam and his dreams for India and Indians," he says. This, he hopes, could well become a sequel to the "Wings of Fire."

**The ‘Missile Man’ Remembers** A Review of APJ Abdul Kalam’s *Wings of Fire. An Autobiography* (University Press, 1999)

## **Introduction**

Atomic establishment experts and defence scientists increasingly bask in the limelight of nuclearised South Asia as exemplars of supreme national technical endeavour and achievement. Lionised and decorated with the highest civilian honours in India and Pakistan, they now occupy the ‘national hero’ pedestal that used to be the preserve of statesmen, soldiers and cricketers. *Bharat Ratna* A.P.J. Abdul Kalam’s autobiography blurb claims that the author represents “the best aspects of Indian life” and the contents perform handsome corroborative justice. But knowing the author’s legendary personal humility and self-abnegation, one need not read any aggrandising motives into the venture. This autobiography stems from a desire to propagate “a message for young Indians” (Preface) rather than as a publicity exercise. Certainly, Kalam the icon needs no further trumpeting, least of all by means of a book.

## **A Rocketeer’s Saga**

Born into a devout lower middle class Muslim family in the temple city of Rameshwaram in 1931, Kalam developed an early inclination for physics and science and began rationalising it within the purview of religion. A leitmotif of the autobiography is to demonstrate how “science has always been the path to spiritual enrichment and self-realisation”. Nurtured in a profoundly spiritual value system that suggested true reality lay beyond the mundane material world, Kalam fitted God into the matrix of his growing interest in aeronautics at high school in Trichy by visualising movement even in inanimate matter thus: “Everything solid... contains empty space within and everything stationary contains great movement within...as though the great dance of Shiva is being performed on earth during every moment of our existence”.

Graduating from Hindustan Aeronautics Limited, Kalam applied to the Indian Air Force but failed to clear the interview at Dehradun. In a moment of despondency and dwindling self-belief he chanced upon the Yogi Shivananda’s *ashram* at Rishikesh and was electrified by the Swami’s message: “You are not destined to become an Air Force pilot...Search for the true purpose of your existence...Surrender yourself to the wish of God”. Content with what was destined, Kalam threw himself headlong into the Ministry of Defence’s Civil Aviation Directorate and began a tryst with rockets that would catapult him and his models to sublime heights. At the Aeronautical Development Establishment, Bangalore, Kalam designed India’s first ever indigenous wingless hovercraft, *Nandi*, a feat that brought him cognisance of M.G.K.Menon and Vikram Sarabhai at the Indian Committee for Space Research (INCOSPAR).

Kalam saw in Sarabhai the perfect bellwether of India's space and missile research, a man imbued with deep humanistic attributes, a visionary ideal of achieving self-sufficiency and a fundamental duality characterising India's *locus standi* on R&D in the 1960s (while overtly working on a Satellite Launch Vehicle, he "almost in the same breath", asked Kalam to apply himself on a Rocket-Assisted Take Off System- RATO- for military aircraft). Maintaining that an SLV, a sounding rocket and a missile are different kinds of rockets belonging to the same family, Sarabhai underlined this ambivalence. After *Rohini* was launched in 1967 by Thumba Equatorial Rocket Launch Station (TERLS), Kalam was commissioned by Sarabhai to develop RATO to enable military aircraft to take off from short runways in the Himalayas and other hostile terrains. While leading the RATO motor project, Kalam developed a keen interest in strategic and tactical missiles and airborne weapon systems, an embryo that would fructify years later in India's Indigenous Guided Missile Development Programme (IGMDP).

Since Indian defence equipment was almost entirely imported, Kalam began formulating a question that equally haunted policy-makers: "Was this nation doomed to live with screwdriver technology?". Rebutting the oft-cited costs argument against weaponisation- that the country's development needs would suffer from defence expenditure- Kalam pointed how the exchequer saved 4 crore Rupees worth of imported technology by RATO's induction and concluded that a poor country like India **could not** afford an under-researched military establishment. Dichotomy between development and defence was specious, for "a nation needs both economic prosperity and strong security for growth and development". Even while leading the SLV-3 project with the Indian Space Research Organisation (ISRO), Kalam retained contacts with the Defence Research Development Laboratory (DRDL) and periodically assessed its Missile programme ('Devil Project').

An undeniable factor that drove Kalam into embracing missiles was intense nationalism. Years ago, as a trainee at NASA's Wallops Flight Facility, Virginia, he was fascinated by a painting in the reception lobby depicting Tipu Sultan's army fighting the British with rockets. It thrilled him to see "an Indian glorified by NASA as a hero of warfare rocketry". Modern Indian rocket advancements were to him "a revival of the eighteenth-century dream of Tipu Sultan". On a generic level, Kalam the technocrat also believed that the dominant struggle in the 'brave new world' is for economic and technological supremacy and that India, "a country of one billion people", was destined to be a leader in technology and inferentially in world politics. On the launch of SLV-3 (1980), which "proved the scientific strength of our country", he immediately proposed a 'Re-Entry Experiment' that would convert the Satellite subsystem into an ICBM. Kalam was unambiguously clear that long range missiles had to be developed now that Pokhran I (1974) had demonstrated "India's indigenous technical competence". The payload (conventional warheads and possibly nuclear bombs) awaited the delivery system.

At the behest of nuclear scientist Raja Ramanna, *Padma Bhushan* Kalam finally plunged into the defence establishment in 1982 as Director of DRDL. Playing an uncanny collective management tune to the hilt, he vindicated the pressman's label, "welder of people", through superlative personnel organisation of IGMDP over one decade. Michael Porter would have exclaimed at the range of project management and leadership skills Kalam acquired from Sarabhai, Brahm Prakash and Satish Dhawan and employed at DRDL. Regular interfacing among individuals and work centres was mandatory to enhance "performance dimensions" and optimum utilisation of human resources. Problem solutions required 'flow', a "by-product of controlled creativity". Single-minded devotion (Kalam had a 18-hour work day) meant commitment to work not as profession or livelihood, but as "your religion, your mission". Above all, in a challenging and unprecedented task such as space and missile engineering, the ability to absorb aborted endeavours and return with "fresh dreams" was underscored. *Trishul* (Tactical Core Vehicle, 1985), *Prithvi* (Surface-to-Surface, "the best in the world today", 1988), *Agni* (IRBM, 1989), *Nag* (Anti-Tank, 1990) and *Akash* (Surface-to-Air, 1990) were outcomes of the brilliant and painstaking coordination of hundreds of engineering and scientific minds, "individual efforts woven into a mighty fabric of great strength".

Convinced that "missiles and atomic weapons are merely parts of a greater whole", *Padma Vibhushan* Kalam veered in the 1990s towards participation in "the recent important national event", India's nuclear programme, as chief of DRDO, Scientific Adviser to the Defence Minister and most recently, Principal Scientific Adviser to the Prime Minister (1999). Along with R.Chidambaram, he was among the "handful of scientists" who instigated "a handful of politicians" (George Perkovich's seminal conclusion in *India's Nuclear Bomb: The Impact on Global Proliferation*, p.412) to eschew 'nuclear option' ambiguity and test thermonuclear devices in May, 1998. Kalam's rationale of Pokhran II was similar to the one employed for IGMDP-asserting India's sovereignty and strengthening its security. A state-of-the-art missile system together with the bomb constituted a Precision-Guided Munitions (PMG) deterrent capable of "preventing wars involving India" and not just raising the cost of external attack and intervention. If SLV-3 placed India in an exclusive club of half a dozen nations, Pokhran II was another giant demonstration of a "national urge to succeed".

## **Conclusion**

What then is the "message for young Indians" that percolates through the narrative? The poet in Kalam (proficient in the *Bhagavad-Gita*, Coleridge, Lewis Carroll, Emerson, Auden, Eliot, Gibran and Milton) muses, "we are all born with a divine fire in us". Our efforts should be to "give wings to this fire" so that the billions that comprise India "will never feel small or helpless". Indian science has contributed to this beyond dubiety by breaking the monopoly of the west over wide-ranging technological frontiers and "sloughing off the dead skin of subordination to industrialised nations". The key to the modern world order lies in "superiority through technology" and India must continue to pursue and update its mission of self-

sufficient security by dint of self-belief. Michelangelo may have been the greatest artist of the Renaissance but in many ways, Leonardo da Vinci *was* the Renaissance. Kalam may not have been the brightest scientist in the dream of transformation from 'reverse engineering' to national self-reliance in aerospace and atomic development, but in myriad ways demonstrated by this autobiography, he *was* the dream.

(Sreeram Sundar Chaulia studied Indian History at St.Stephen's College, Delhi, where he had the privilege of hosting a lecture by APJ. Abdul Kalam in 1997. He took a second BA in Modern History from University College, Oxford. He is currently analysing the BJP's Foreign Policy at the London School of Economics and Political Science)