

Fire that ever Flame

APJ Abdul Kalam, the 11th President of India, took his last breath on 27 July in Shillong. He was 83 years old and was very active till his last breath. He served the country as the President from the year 2002 to 2007. India's "Missile-Man" who has won every Indian's heart, was recipient of Bharat-Ratna and was widely known as people's president . He was born on 15 October, 1931, at Rameswaram in Tamil Nadu. His childhood was not easy and privileged. In order to support his family, he used to distribute newspapers. Strong desire to learn Mathematics set Dr.Kalam apart from the other students. You may wonder how a young boy who used to distribute newspaper for a living, became the great missile man. What did motivate and inspire him to be a scientist and then become the President of India? Let's know more about Dr. APJ Abdul Kalam.

He was never the first ranker at school, but he was known for his bright mind and hard work. He used to get up at 4 in the morning to study and distribute newspaper. As a child he used to wait with eagerness to read the newspaper. He said, "I used to sit on the bench and open the bundle and carefully pick a copy of the daily newspaper Dinamani. The first page always caught my attention: it was usually filled with photographs of fighter aircraft and stories of Second World War."Dr. Kalam, himself, wanted to be a fighter plane pilot. A class and practical session by his teacher on the Rameswaram seashore on how birds fly and apart the locomotive force behind their flight gave former President APJ Abdul Kalam his aim in life. He said "I chose physics, opted for aeronautical engineering, and then became a rocket engineer. Then a space technologist." He had spent four decades as a scientist and science administrator at several prestigious organizations like the Defence Research and Development Organization (DRDO) and Indian Space Research Organization (ISRO). Once, Dr. APJ Abdul Kalam rejected the suggestion to put broken glass on the wall of a building that needed protection. Why? Because broken glass would be harmful for birds! . He was so kind and



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down to earth. He had such a spell among the youth of India that he was twice chosen as the Youth Icon by MTV viewers in 2003 and 2006. Let's dream big and try to fulfill them as Kalam sir did. Work hard and understand the importance of discipline in our life to be a person like Dr. Kalam. He said "If you want to shine like a sun, first burn like a sun". Read the books i.e. "Ignited Minds" and "Wings of Fire" written by Dr. APJ Kalam and get inspired. One of his most inspiring quotes is "Explore untravelled path, face challenges and be kind to all."

An engineering manager is someone who is entrusted with the job of synergising and aligning a team's energies and talents to one common goal.In his early days, he was in a team that designed a light weight helicopter for the army.Apart from this, he also worked directly under Vikram Sarabhai, the founder of the Indian Space Research Organization, under whom he was a project director of the Rohini satellite program. While putting his engineering abilities to good use, he was also learning leadership from some of the best leaders in the world. In his own words, Kalam said, "I learnt leadership from three great teachers—Dr. Vikram Sarabhai , Prof Satish Dhawan and Dr Brahm Prakash. This was the time of learning and acquisition of knowledge for me."

Popular journalist Rajdeep Sardesai recounts an interesting experience with him –"In 2007, at the Ramnath Goenka journalism awards, I had the privilege of receiving the award from President Kalam. When a question and answer session followed the award ceremony, Kalam refused to sit in the front row. Instead, he came and sat cross-legged on the stage, asking us why we didn't focus more on science and technology in the news. It was a bizarre scene: pompous editors sitting on chairs while the easy-going president was on the stage floor asking us questions!

This was quintessential Kalam: unconventional in style, be it his floppy silvery mane of hair, or inviting an audience to send him questions to his personal email: 'please write to abdulkalam@apj.com, shall I repeat!"

The engineering manager is the custodian of the engineering culture in any organization, and the engineering fraternity needs a Kalam Blueprint for engineering managers.

Post his tenure as a scientist, Dr. Kalam started to take up more leadership and management roles. Since Rohini, some of Dr. Kalam's greatest contributions have come through his leadership roles in PSLV and SLV III. From here on, he led the design and development of India's most potent missiles – Agni and Prithvi. Cumulatively, Kalam would have easily managed funds of many billions of dollars and many thousand talented scientists and engineers. A lot of any managerial job involves mentorship, and Kalam embodies the quintessential mentor. Even his last moments were spent, trying to impart his knowledge to students, whom he loved spending time with. In fact, post his tenure of chief scientific advisor to the prime minister, he set himself a target of interacting with at least 1,00,000 students, so he could share his knowledge and inspire more young people to take up science and technology. Surely a lot of this would have rubbed off on his subordinates too.

Every leader is different. In Dr. Kalam's case, he was a rare blend of brilliance, determination, foresight and humility. To start with, he was a brilliant scientist, who earned his stripes with some of the brightest minds in the world. That is the foremost requirement for an engineering manager. This earns an intellectual's respect. Secondly, a leader is not worried about rolling up his sleeves and getting work done. Kalam was as hard working as anyone else, and there are many employee accounts of his tremendous work ethic. Examples of foresight are abundant in his book India 2020, where he very clearly describes what India needs to do to become a world superpower – five areas where India has a core competence for integrated action: (1) agriculture and food processing; (2) education and healthcare; (3) information and communication technology; (4) infrastructure, reliable and quality electric power, surface transport and infrastructure for

all parts of the country.⁵⁾ self-reliance in critical technologies. These five areas are closely inter-related and if advanced in a coordinated way, will lead to food, economic and national security.

Kalam became the 11th president of the Republic of India in an easy victory, and moved into the Rashtrapati Bhavan after he was sworn in on 25 July 2002. Kalam was the third President of India to have been honoured with a Bharat Ratna, India's highest civilian honour, before becoming the President. Dr Sarvepalli Radhakrishnan (1954) and Dr Zakir Hussain (1963) were the earlier recipients of Bharat Ratna who later became the President of India. He was also the first scientist and the first bachelor to occupy Rashtrapati Bhavan. During his term as president, he was affectionately known as the People's President saying that signing the Office of Profit Bill was the toughest decision he had taken during his tenure. Kalam was criticised for his inaction in deciding the fate of 20 out of the 21 mercy petitions submitted to him during his tenure. Article 72 of the Constitution of India empowers the President of India to grant pardons, and suspend or commute the death sentence of convicts on death row. Kalam acted on only one mercy plea in his five-year tenure as president, rejecting the plea of rapist Dhananjoy Chatterjee, who was later hanged. Perhaps the most notable plea was from Afzal Guru, a Kashmiri terrorist who was convicted of conspiracy in the December 2001 attack on the Indian Parliament and was sentenced to death by the Supreme Court of India in 2004. While the sentence was scheduled to be carried out on 20 October 2006, the pending action on his mercy plea resulted in him remaining on death row. In September 2003, Kalam supported the need of Uniform Civil Code in India, keeping in view the population of the country. At the end of his term, on 20 June 2007, Kalam expressed his willingness to consider a second term in office provided, there was certainty about his victory in the 2007 presidential election. However, two days later, he decided not to contest the Presidential election again stating that he wanted to avoid involving Rashtrapati Bhavan from any political processes. He did not have the support of the left parties, Shiv Sena and UPA constituents, to receive a renewed mandate.

After leaving office, Kalam became a visiting professor at the Indian Institute of Management Shillong, the Indian Institute of

Management Ahmedabad, and the Indian Institute of Management Indore, an honorary fellow of Indian Institute of Science, Bangalore; chancellor of the Indian Institute of Space Science and Technology Thiruvananthapuram, professor of Aerospace Engineering at Anna University and an adjunct at many other academic and research institutions across India. He taught information technology at the International Institute of Information Technology, Hyderabad, and technology at Banaras Hindu University and Anna University. In May 2012, Kalam launched a programme for the youth of India called the What Can I Give Movement, with a central theme of defeating corruption. In 2011, Kalam was criticised by civil groups over his stand on the Koodankulam Nuclear Power Plant, he supported the establishment of the nuclear power plant and was accused of not speaking with the local people. The protesters were hostile to his visit as they perceived him to be a pro-nuclear scientist and were unimpressed by the assurances provided by him regarding the safety features of the plant. Being a scientist who wanted to push ahead his nation to self sufficiency on energy front, his support for the nuclear plant is natural only.

Kalam describes a "transformative moment" in his life when he asked Pramukh Swami, the guru of the BAPS Swaminarayan Sampradaya, how India might realize this five-pronged vision of development. Pramukh Swami's answer—to add a sixth area developing faith in God and spirituality to overcome the current climate of crime and corruption—became the spiritual vision for the next 15 years of Kalam's life, which he describes in his final book, *Transcendence: My Spiritual Experiences with Pramukh Swamiji*, published just a month before his death. It was reported that there was considerable demand in South Korea for translated versions of books authored by him. Kalam took an active interest in other developments in the field of science and technology, including a research programme for developing biomedical implants. He also supported open source technology over proprietary software, predicting that the use of free software on a large scale would bring the benefits of information technology to more people. Kalam set a target of interacting with 100,000 students during the two years after his resignation from the post of scientific adviser

in 1999. He explained, "I feel comfortable in the company of young people, particularly high school students. Henceforth, I intend to share with them experiences, helping them to ignite their imagination and preparing them to work for a developed India for which the road map is already available."

Kalam received honorary doctorates from 40 universities. The Government of India honoured him with the Padma Bhushan in 1981 and the Padma Vibhushan in 1990 for his work with ISRO and DRDO and his role as a scientific advisor to the Government. In 1997, Kalam received India's highest civilian honour, the Bharat Ratna, for his contribution to the scientific research and modernisation of defence technology in India. In 2013, he was the recipient of the Von Braun Award from the National Space Society "to recognize excellence in the management and leadership of a space-related project".

On 27 July 2015, Kalam travelled to Shillong to deliver a lecture on "Creating a Livable Planet Earth" at the Indian Institute of Management Shillong. While climbing a flight of stairs, he experienced some discomfort, but was able to enter the auditorium after a brief rest. At around 6:35 p.m., only five minutes into his lecture, he collapsed. He was rushed to the nearby Bethany Hospital in a critical condition upon arrival, he lacked a pulse or any other signs of life. Despite being placed in the intensive care unit, Kalam was confirmed dead of a sudden cardiac arrest at 7:45 p.m.

Following his death, Kalam received numerous tributes. The Tamil Nadu state government announced that his birthday, 15 October, would be observed across the state as "Youth Renaissance Day;" The state government further instituted the "Dr. A.P.J. Abdul Kalam Award," constituting an 8-gram gold medal, a certificate and Rs.500,000 (US\$7,400). The award will be awarded annually on Independence Day, beginning in 2015, to residents of the state with achievements in promoting scientific growth, the humanities or the welfare of students.

On occasion of his birth day (2015), CBSE has given the topics on his name in the CBSE expression series. Several educational and scientific institutions and other locations were renamed or named in honour of Kalam following his death. His life was an epoch making event in the history of modern India.