



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## INDO-FRANCE DEFENCE RELATIONS: A HISTORICAL ANALYSIS

**Lt. Dr. S. Rajagopal,**

Assistant Professor, Department of History,

Mannar Thirumalai Naicker College, Pasumalai, Madurai, Tamilnadu-625 004

**Abstract:** After independence, in 1947, 1965, 1971 and 1999 India faced four major wars with Pakistan; in 1962 an unfortunate war with China and faced many anti-terrorist operations. Near our surroundings of us, Pakistan and China are continuously developing their defence power. India's defence analysts were always creating awareness and guided to nations' security, modernisation of armed forces equipment, indigenous defence production and upliftment of advanced modern equipment for defence on the border in land, air and sea of our nation. India wanted to protect its homeland from external threats so, she signed a defence deal with 20 foreign countries including France, Russia, Israel etc. Particularly Indo-France defence relations are in four phases and the move forward to defence cooperation is in the fifth phase. In this fifth phase, India collaborates with France and will create the defence potential for self-reliance, leading global power, more concentrating on indigenous production and exporting defence goods to foreign countries. Regarding the Indo-France Defence various phases, this paper concentrates in the succeeding paragraph.

**Keywords:** P-75 Scorpene, Rafale, Project Shakti, VARUNA, 6.5 Generation AMCA.

### I. INTRODUCTION

India's geographical border connectivity is shared with China by 3488 km;<sup>1</sup> Bangladesh by 4,096.7 km;<sup>2</sup> Pakistan by 3,323 km;<sup>3</sup> Bhutan by 699 km;<sup>4</sup> Indo-Myanmar shares an unfenced border of 1,643 km.<sup>5</sup> Also, a 7,516 km wide range of coastline touching nine states, four Union Territories and 1,197 Islands with 12 Major ports, and 184 minor ports.<sup>6</sup> After independence, in 1947, 1965, 1971 and 1999 India faced four major wars with Pakistan; in 1962 an unfortunate war with China and faced many anti-terrorist operations. Our neighbours, Pakistan and China, are continuously developing defence power. India's defence experts are always alerted and there is a need for advanced modern equipment for defence on our border in land, air and sea of our nation.

## II. METHODOLOGY

Indo-France Defence Relations: A Historical Analysis is a systematic analytical study dealing with the emergence of Indo-France defence cooperation that has been focused. For this research study, published evidence is incorporated in the endnote reference. This defence-related research study, mostly sources like the Indian Government Annual Reports such as Ministry of Home Affairs, Ministry of Defence, Sainik Samachar information, MDSL, HAL, GSL, and RBI's Bulletin, Parliamentary debates, Press Information Bureau data are integrated. Also, published research papers and books have been investigated and included for research. The collected published resources are tabulated for the Indo-France defence relation study.

## III. EXPANSION OF DEFENCE POWER BY NEIGHBOURS

**Expansion of Pakistan Defence Power.** Pakistan Air force (PAF) has 404 combat multi-role aircraft. PAF-aircraft has distributed three mixed squadrons with F-7, four mixed squadrons with F-16, five with JF-17, one with Mirage III, and four with Mirage-V. It is reported that Pakistan working to develop fifth-generation fighter aircraft under Project Azm. Incorporation of JF17 fighters with Chinese technology KLJ-7A AESA radars and PL-15 air-to-air missiles integration process in-under development.<sup>7</sup> Apart from the warship, they have 10 submarines of which 'five are acquired from French Agosta-90B class diesel-electric submarines. These submarines were modified with Turkey's modern<sup>8</sup> torpedo-acoustic-sonar control system. The remaining are MG110 class Mini Submarines. Pakistan also accepted the procurement of 8 quantity of 41 Yuan class submarines from China.

**Expansion of Chinese Defence Power.** Chinese armed forces have 6246 Towed Artillery; 6457 Combat Tanks; various generations (gen) of 1271 Fighter aircraft; 1385 Attack aircraft and 206 Attack helicopters; 714 vessels; Aircraft carriers; 35 Destroyers and Corvettes; 68 Submarines and 280 nuclear warheads.<sup>9</sup> In early 2022, they have 11 aviation brigades modernised with 3<sup>rd</sup> gen aircraft; 16 aviation brigades established with 4<sup>th</sup> gen aircraft; 14 aviation brigades kiting with 4.5 gen aircraft and 3 aviation brigades instruments with 5<sup>th</sup> gen aircraft. They also maintain 5 aviation brigades of JH-7/JH-7A fighter bombers and 9 conventional bomber regiments equipped with a mix of H-6 variants.<sup>10</sup> China also provide arms supply to Nepal<sup>11</sup> Bangladesh and Pakistan.

## IV. PHASES OF INDO-FRANCE DEFENCE RELATION

**India's Defence Deal with France.** In the modern world, every nation is maintained either its own defence ideology or develops diplomatic international relations with other nations. Strategic defence ties have been a vital component of India's international relation. It has provided to reinforce relations with pleasant nations and overseas policy. In the modern warfare scenario for internal safety and external threat facing, India has mandatory to maintain advanced multi-technology capabilities in land, air and water. It has either indigenous defence production of all defence goods or procured security-concerned vital defence equipment/under Transfer of Technology (ToT) or strategic deal with trustworthy friendly nations. From 1<sup>st</sup>

August 2014 onwards, India signed 20 defence deals with foreign countries including France. India-France defence cooperation emerged into four phases.

**First Phase Indo-France Defence Relation from 1947 to 1962.** On the occasion of India's freedom, the British-India Army was fractionalized proportionately between the Indian Army and Pakistan Army. In the partition, India has retained fourteen cavalries, eleven infantry regiments and six Gorkha Regiments from the erstwhile formation of around 2,80,000 troops.<sup>12</sup> After independence, India proposed its initial defence relations with France in 1949 and obtained mountain kits for Kashmiri armed forces. At the time, M/s Dassault Aviation, France sold to the newly formed Indian Air Force (IAF), 71 quantities of MD-450 Ouragan aircraft supplied in 1953. In 1956, India obtained 110 quantities of Mystère-IVAs fighter aircraft and 164 quantities of light tanks (AMX-13/Model-51). In 1959, France supplied 12 quantities of Alizé anti-submarine warfare aircraft, and SA-316B Alouette-III light helicopters for high-altitude landings to India in 1961.<sup>13</sup> India-French defence deal reached US\$ 322 million in 1957 and US\$ 282 million in 1958. When India gained independence, the then-Indian Prime Minister Nehru believed that for the next 15 years, police forces would be enough for its security. Also, India encouraged non-violence, non-alignment policies; and the Panchsheel agreement with China in 1954. In this phase, Pakistan invaded India in 1947 and China also attacked in 1962. Therefore, India rewrote its defence relations policy and opened a new defence deal with other nations.

**Second Phase Indo-French Defence Relation from 1963 to 1971.** During the period from 1963 to 1971, India emerged learning and growing stage in defence dealing. Pakistan invaded second time with India in 1965. Earlier, France supplied defence materials to India and Pakistan. In 1965, France banned supplies of defence deals with both India and Pakistan. But India's earlier demanded (before the 1965 War) 3 quantities of Alizé aircraft, 50 quantities of AS-30 air-to-surface missiles, 2000 quantities of ENTAC and 4000 quantities of anti-tank missiles (SS-11/AS-11) released by France. India wanted to strengthen its armed forces and tried to procure 40 quantities of Lama light helicopters (SA-315B) in 1968 and 230 quantities of SA-315B Lama light helicopters in 1971 from France. But it was delayed and later French Alouette helicopter upgrade version of Chetak and Cheetah helicopters was manufactured under license by Hindustan Aeronautics Limited (HAL) in Bangalore. Indo-French defence supply between 1962 and 1968 averaged US\$13 million per year. At the same time, America promised Phantom fighters to India and was never delivered to India. Simultaneously, Soviet Russia supplied various versions of the Mig-21 fighters with minimal cost was too close to India and maintained cordial relationship.<sup>14</sup>

**Third Phase of the Indo-French Defence Relation from 1971 to 1998.** In the third phase, Indi-France defence procurement and ToT increased but it's a major part of the defence deal dominated by Russia. India purchased the Franco-British collaboration aircraft Jaguar in 1979 and acquired 1000 quantities of R-550 Magic-I short-range air-to-air missiles to train combat aircraft. In 1979, India obtained 40 quantities of PA-6 diesel engines for offshore patrol vessels. In 1981, France supplied 1000 quantities of anti-tank missiles (MILAN).<sup>15</sup> Pakistan acquired the F-16 aircraft deal with America. India initiated French-made Mirage-2000 combat aircraft in 1979,<sup>16</sup> and delivered 40 quantities between 1985-86; 30 quantitative of air

surveillance radars (TRS-2230/15) in 1983 under a ToT agreement and seven quantitative of PSM-33 air surveillance radars in 1988. Also, 8 quantitative of Agave aircraft radars in 1982; four quantitative of TRS-2100 Tiger air surveillance radars in 1983; eight quantitative of PA-6 diesel engines for corvettes in 1983; 294 quantitative of Super-530D air-to-air missiles for Mirage-2000 aircraft in 1984; 500 quantitative of R-550 Magic-2 short-range air-to-air missiles for Mirage-2000; Jaguar and Sea Harrier battle aircraft in 1988 and 8 quantitative of PA-6 diesel engines for corvettes in 1990.<sup>17</sup> In this period India's defence relations were closer with Israel,<sup>18</sup> and Russia than France.

**Fourth Phase of India's Defence Relation with France Since 1998.** India's strategic defence cooperation was initiated by Mr Vajpayee's Government when French President Jacques René Chirac visited in 1998. After that India dealt with many important Armed forces exercises, the High-Level Committee for Defence Cooperation, high-level visits, the Joint Working Group on Terrorism, Joint production, 'Staff Talks, Personnel Exchanges, Interactions and growing exchanges among premeditated areas such as nuclear energy, defence, aerospace, etc.' with France.<sup>19</sup> Dr Manmohan Singh visited France on 15<sup>th</sup> September 2005 and made a confirmation of the acquisition of six Scorpène submarines. 'Mr. Modi's government signed a Memorandum to purchase of Rafale aircraft for India in Delhi on 26<sup>th</sup> January 2016'<sup>20</sup> and the purchase of 36 Rafale fighters on 23<sup>rd</sup> September 2016.<sup>21</sup> Now, Indo-France FDI dealing is one of the eleventh largest in India with a growing asset of around 10 billion US\$ up-to December 2020. Foreign Direct Investment (FDI) inflow to India was around US\$ 6,05,116.99 Million from 2000-01 to August 2022-23. India has an average FDI from France is 1.7044 % during the period which is around 10,313.70 US\$ Million.<sup>22</sup> A vital part of the fourth phase of India's Defence Relation development with France is as under: -

(i) **P-75 Scorpene Project.** To safeguard the Indian Ocean Region, India has a defence deal with France in 2005 worth around 3.75 billion dollars. According to the agreement, India got the construction of six Scorpene-Class Submarines under ToT to Mazagaon Dock Shipbuilders Limited (MDSL), Mumbai signed on 6th October 2005. Also, the collaboration agreement with M/s ARMARIS, France to boost India's naval capabilities<sup>23</sup> and technology collaboration for all types of submarine simulators.<sup>24</sup> Indo-France collaboration ultra-modern P-75 Scorpene Submarine Project's first submarine INS Kalvari was delivered to the Indian Navy (IN) on 21<sup>st</sup> September 2017; the second P-75 Submarine 'INS Khanderi' was delivered to the IN on 19<sup>th</sup> September 2019; the third P-75 Submarine 'INS Karanj' was delivered to the IN on 15<sup>th</sup> February 2021.<sup>25</sup> The fourth submarine 'INS Vela' was delivered on 09<sup>th</sup> November 2021; the fifth submarine 'INS Vagir' was launched by MDL to the IN on 12<sup>th</sup> November 2020. The last and sixth P-75 Scorpene Submarine 'INS Vagsheer' was delivered to the IN on 20 April 2022<sup>26</sup> and underway sea trials. INS Vagsheer' will be expected to be commissioned into the IN in 2024.

(ii) **Rafale Aircraft Defence Dealing.** During the French National Day celebrations in Paris, the Indian Prime minister participated as Guest of Honour on 14th July 2009. A team of 400 three services delegation of the Indian Defence Forces participated in the Bastille Day Parade.<sup>27</sup> The Defence Minister of France visited India from 25<sup>th</sup> to the 27<sup>th</sup> July 2013. During his visit, bilateral defence cooperation and

security were discussed. To strengthen IAF, India has proposed the acquirement of Medium Multi Role Combat Aircraft (MMRCA). After a long contract negotiation with various vendors with various levels, India has selected Rafale from M/s Dassault Aviation, France for the acquirement of 126 Rafale MMRCA for the IAF.<sup>28</sup> When, Indian Prime Minister visited to France, Indo-France Joint Statement was issued by the both nations. After a long discussion of Rafale Aircraft, the Government of India (GoI) freighted to France Government, she would like to procure 36 Rafale jets along with associated systems/weapons.<sup>29</sup> Mr Jean Yves Le Drian, Defence Minister of France visited India in May 2015. Indian Defence Minister Mr Manohar Parrikar and France Defence Ministers Mr Jean Yves Le Drian signed an MoU on the purchase of Rafale aircraft in Delhi on 26<sup>th</sup> January 2016<sup>30</sup> and also signed an Inter-Governmental Agreement (IGA) with France for the purchase of 36 Rafale fighters on 23<sup>rd</sup> September 2016<sup>31</sup> at the cost of around ₹59,000 crores. For IAF, the aircraft, associated systems and weapons would be delivered on the same configuration as had been tested and approved by IAF; and with a longer maintenance responsibility by France.<sup>32</sup> Up to Dec 2022, India has received 36 Rafale fighter jets from France in flying condition. Also, 'Ministry of defence granted approval for the acquisition of 26 Rafale Marine fighters and three Scorpene diesel electric submarines'.<sup>33</sup>

**(iii) France Aid in Kaveri Engine Problems.** The Gas Turbine Research Establishment (GTRE), in Bangalore, proposed the progress of the indigenous GTRE GTX-35VS Kaveri Aero engine to gather the desires levels of the indigenous multi-role Light Combat Aircraft (LCA)<sup>34</sup> in December 1986 and sanctioned the project in 1989. GTRE developed 9 proto-type Kaveri engines and four core engines and worked with Russia. But it does not attain the specified limitations to control a fighter. 'India has a joint venture deal with French jet engine manufacturer M/s SNECMA with HAL on improving the Kaveri turbofan engine'.<sup>35</sup> To sort out the technical assistance of the Kaveri engine problem, Aeronautical Development Agency, Bangalore made a contract to SNECMA in February 2006.<sup>36</sup> But the Kaveri engine generated an output of 70.4 kilo Newton. Now it is a proposal for a redesign of Indian indigenous next-generation drones. As per La Tribune reported that, in 2018, French firm M/s SNECMA resolve to assist in the fabrication of the Kaveri engine by chipping in French M88's automation. Meanwhile, India decides to jointly work with France to fabricate a latest jet machine for the ultramodern 6.5-generation Advanced Medium Combat Aircraft (AMCA).

**(iv) Indo-France Joint Project Shakti.** HAL, Bangalore has signed an agreement with Turbomeca, France for joint development and production of 320 Shakti engines or also known as Ardiden 1H1, a turbo-shaft engine in five phases (0 to 4) by 2013<sup>37</sup> for Dhruv Advanced Light Helicopter (ALH) MK-III. Dhruv made its maiden flight powering on 16<sup>th</sup> August 2007. The first Ardiden 1H1 re-engineered Dhruv helicopter took to the skies on 12<sup>th</sup> January 2009<sup>38</sup>. Now, more than 500 Shakti engines have been produced up to 8<sup>th</sup> July 2022.

**(v) Other France Defence Deal with HAL.** HAL had entered an agreement with M/s 3D firm of France to acquire ToT to manufacture integrated circuits in three dimensions on 11<sup>th</sup> December 2007.<sup>39</sup> HAL signed an MoU with Turbomeca/Safran firm in France on 17<sup>th</sup> June 2015 and France's firm will

provide maintenance, repair and overhaul of engines installed in HAL-produced helicopters.<sup>40</sup> HAL has also supplied spare parts of A320 Passenger Doors to Airbus and Engine Kits to Safran Engines aerostuctures in France<sup>41</sup>

**(vi) GSL Collaboration with France.** Goa Shipyard Limited (GSL), Goa has association with M/s. Wartsila LIPS Defence in France into a supply of stern gear equipment for constructing a Damage Control Simulator (DCS) for the Indian Navy at INS Shivaji and Lonavla.<sup>42</sup> In addition, the firm has also worked together with M/s Wartsila for the supply of CPP system components for the ongoing five Coast Guard Offshore Petrol Vessel (CGOPV) Project.<sup>43</sup>

**(vii) France Radar Under ToT in BEL.** India's defence electronics equipment manufacturing company Bharat Electronics Limited, (BEL), Bangalore has tied up with M/s Thales, France under the ToT for the production of Low-Level Transportable Radars (LLTRs) for the Indian Airforce. It can be mobile deployable anywhere as per operational requirements.<sup>44</sup>

## V. ARMED FORCES EXERCISES WITH FRANCE

**Tri-Services Defence Exercises with France.** India and France's defence troops alternatively conducted defence training exercises to strengthen bilateral relationships and Maritime exercises 'have been conducted in May 1993. Since 2001, this naval exercise is called 'VARUNA' and it enhances maritime task operations, submarine training, strategic movements, maritime reconnaissance, warship cross-deck operations, target firing practice etc. Both nations' joint Airforce bilateral exercise 'GARUDA' have been conducted since 2003. India conducted 1<sup>st</sup> edition exercise in 2003; 3<sup>rd</sup> edition exercise in 2006; 5<sup>th</sup> edition exercise in 2014 and 7<sup>th</sup> edition exercise in 2022. France conducted the 2<sup>nd</sup> edition exercise in 2015, the 4<sup>th</sup> edition exercise in 2010 and the 6<sup>th</sup> edition exercise in 2019. This Garuda joint exercise boosts the professional interaction, exchange of operational abilities and exchange interoperability experiences of the Airforce. Since 2011 onwards, the Indo-France Army bilateral counter-insurgency military exercise 'SHAKTI' has been conducted six times. India conducted the first, second, third and fifth edition Shakthi exercises for the years 2011, 2013, 2016 and 2019 respectively. France conducted the 4<sup>th</sup> edition exercise in 2015 and the 6<sup>th</sup> edition exercise in 2021. This bilateral army exercise enhances interpersonal relationships; physical fitness; cordon and search operation capabilities; quick deployment operations, counter-terrorism operations techniques; casualties rescue operations by using the helicopters of the Army. Indo-France joint defence exercise some vital details are mentioned in Table 1:-

**Table 1: Indo-France Defence Exercise**

Ser No	Joint Exercise	Duration of Visit		Venue
		From	To	
1	Indo-France Air Exercise Garuda-IV & Naval Exercise VARUNA-2003/1 <sup>45</sup>	25.08.2003	30.08.2003	Agra, Goa
2	Indo-France Naval Exercise VARUNA 2004/1 <sup>46</sup>	15.12.2003	18.12.2003	Toulon French
3	Exercise(ex) VARUNA <sup>47</sup>	06.04.2004	14.04.2004	Goa
4	ex-VARUNA 2006 <sup>48</sup>	27.03.2006	07.04.2006	Goa
5	ex-Garuda-IV 2010 <sup>49</sup>	04.06.2010	25.06.2010	Istres, France
6	ex-Shakti 2013 <sup>50</sup>	09.09.2013	21.09.2013	Jodhpur
7	ex-Garuda-V <sup>51</sup>	02.06.2014	13.06.2014	Jodhpur&Agra
8	ex-VARUNA-15 <sup>52</sup>	23.04.2015	02.05.2015	Arabian Sea
9	ex-‘Shakti-2016’ <sup>53</sup>	07.01.2016	16.01.2016	Rajasthan
10	ex-VARUNA <sup>54</sup>	24.04.2017	30.04.2017	Toulon, France
11	ex-VARUNA in Three Phases <sup>55</sup>			South-Western Indian Ocean
	Harbour Phase	18.03.2018	20.03.2018	
	Sea Phase I	20.03.2018	24.03.2018	
	Sea Phase II	02.05.2018	03.05.2018	
12	ex-‘Shakti’ 2018	31.01.2018	05-02.2018	Mailly-le-Camp, France
13	ex-Garuda-VI	01.07.2019	12.07.2019	Mont-de-Marsan Airbase
14	ex-‘Shakti’ 2019	31.10.2019	13.11.2019	Rajasthan
15	ex-‘Shakti’ 2021	15.11.2021	26.11.2021	Frejus, France
16	ex-VARUNA	30.03.2022	03.04.2022	Arabian Sea
17	ex-Garuda-VII	26.10.2022	12.11.2022	Jodhpur

### High-Level Committee for Defence Cooperation.

An annual defence secretary level, meeting between India and France i.e., High-Level Committee for Defence Cooperation (HCDC) was formed. The Committee was established in 1998, it gives energy to the development of defence relations, and identifies specific areas of cooperation between the defence forces’ production and research organisations. Each meeting discusses the construction of submarines, industry collaborative research on radars and other defence areas,<sup>56</sup> terrorism, reinforcing our defence and security relations and Indo-French Military exercises.<sup>57</sup> After a five years gap, the 15<sup>th</sup> HCDC meeting between India-France conducted in Paris on 25<sup>th</sup> November 2021 and expressed a strong desire to carry forward the momentum in Defence equipment and industrialization.<sup>58</sup>

### Joint Maritime Surveillance Satellites Programme.

Indo-France relations were boosted by the naval joint patrolling in the southwestern Indian Ocean and the Indian Ocean Region (IOR). Because of more Chinese naval movement in the IOR, illegal vessel movement, data tracking, monitoring and protecting the properties in sea and land. Therefore, there is a requirement for Maritime Domain Awareness and it has accurate information, intelligence and monitoring of all vessels, and cargo over the maritime boundaries<sup>59</sup> Therefore, in March 2018, both nations signed an agreement with a space-related program. This group made a vital joint program of 8 to 10 maritime surveillance satellites in September 2018 with the support of

France's National Centre for Space Studies and the Indian Space Research Organisation (ISRO)<sup>60</sup> for monitoring the movements of military and economic ships in the Indo-Pacific region.

## VI. CONCLUSION

Indo-France defence relations are in four phases. In 1<sup>st</sup> phase, India established its new own Air Force with France aircraft support. During the 2<sup>nd</sup> phase, India acquired a lot of Armed forces equipment and HAL locally manufactured Chetak and Cheetah light helicopters under licence from France firm and it was successful in high altitude areas. In 3<sup>rd</sup> phase, India acquired Mirages aircraft; PSM-33 air surveillance radars; Super-530D air-to-air missiles and short-range air-to-air missile R-550 Magic-2 for Mirage-2000 aircraft from France. India has produced TRS-2230/15 air surveillance radars under ToT. During the 4<sup>th</sup> phase, India has acquainted with defence equipment maturity and manufactured a lot of defence equipment under the ToT. MDL has constructed six P-75 Scorpene submarines; integrated circuits in 3D; LLTRs by BEL etc. under ToT from France. India's got assistance from France an indigenous production of the Kaveri engine, but it has a shortage of specifications. France is willing to invest and collaborate work for the Kaveri engine for further development. India recently received 36 Rafale fighter jets from France in flying condition and DAC made a next level proposal agreement for 26 Rafale Marine fighters and three Scorpene diesel electric submarines'. France always supports India's permanent membership of the United Nations Security Council. Now, the Indo-France defence cooperation is on the way to the fifth phase. Because both nations agreed to jointly work to fabricate a new jet engine for the futuristic 6.5-generation AMCA and other advanced technological ties. In this fifth phase, India will leading global power, more concentrating on indigenous production and exporting defence goods to foreign countries. It will create the defence potential for self-reliance in the future.

## REFERENCES

- <sup>1</sup>. GoI, Ministry of Home Affairs(MHA), *Annual Report(AR) 2009- 10*, p.27 & p.40.
- <sup>2</sup>. *GoI-MHA, AR-2007-08*, p.28.
- <sup>3</sup>. *GoI-MHA, AR-2010-11*, p.40.
- <sup>4</sup>. *GoI-MHA, AR-2008-09*, p.24.
- <sup>5</sup>. *GoI-MHA, AR-2012-13*, p.34.
- <sup>6</sup>. *Sainik Samachar, DPR-MoD, Vol.66, No.9, 1-15 May 2019, New Delhi, p.15; Rajagopal, Lt Dr S. "Emerging Indo-Bangladesh Military Relations: An Analysis." International Journal of Innovative Science and Research Technology, Vol. 8, Issue 3, March 2023, pp.650-655. <https://scholar.google.com/scholar?oi=bibs&hl=en&cluster=13577952154309438726>*
- <sup>7</sup>. Ali, S. *IAF Modernization: Issues and Options for Pakistan. CISS Insight Vol.VIII, No.2, 2021, pp.53-73.*
- <sup>8</sup>. Mian, Z., Ramana, M. V., & Nayyar, A. H. (2019). *Nuclear submarines in South Asia: New risks and dangers. Journal for Peace and Nuclear Disarmament, 2(1), 184-202.*
- <sup>9</sup>. Tiwari, A. *India's Current Defence Preparedness. Mukta Shabd Journal, Vol. IX, Issue V, May/2020, pp.2009-2017.*
- <sup>10</sup>. China Aerospace Studies Institute, *PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces, 3<sup>rd</sup> Edition, Aug-2022, p.22.*



11. Kulkarni, Sudheenadra. "In-China Closer", The Indian Express, 12<sup>th</sup> December, 2010; S., Rajagopal. (2022). **Indo-Nepal Defence Relation: A Historical Perspective**. The Quarterly Journal of the Mythic Society. 113. 76-84. [https://www.researchgate.net/publication/369884533\\_Indo-Nepal\\_Defence\\_Relation\\_A\\_Historical\\_Perspective](https://www.researchgate.net/publication/369884533_Indo-Nepal_Defence_Relation_A_Historical_Perspective)
12. Subramaniam, Arjun, **India's War: A Military History 1947-1971**, Noida, 2016, p.65.
13. Roger, Constance. **Indo-French Defence Cooperation Friends in Need or Friends indeed?**, IPCS Research Papers, March 2007, pp.1-28.
14. Ibid.
15. **SIPRI arms transfer database**, Trade in and licensed production of major conventional weapons: Imports sorted by recipient. Deals with deliveries or orders made 1950-1995.
16. Manikandan, K. **Indo-French Defence Cooperation: Experiences, Trends and Opportunities, in India and France: Past, Present and Future**, edited by B. Krishnamurthy, Pondicherry, 2006, p.103.
17. Roger, Constance. **Op.cit.**, pp.1-28.
18. Rajagopal, S. (2018, January). **India's Defence Collaboration with Israel**. In Proceedings of the Indian History Congress (Vol. 79, pp. 719-727). Indian History Congress. <https://www.jstor.org/stable/26906311>
19. Mathur, A. (2002). **Indo-French economic relations: a study of trade and investment potential**. Indian Council for Research on International Economic Relations, New Delhi., p.2; S., Rajagopal & Vigneswaran, Dr. (2020). **FDI INFLOWS FROM SELECTED WESTERN EUROPEAN COUNTRIES TO INDIA: AN HISTORICAL AND ECONOMIC OUTLOOK**. International Journal of Psychosocial Rehabilitation. 24. 2020. [https://www.researchgate.net/publication/372908344\\_FDI\\_INFLOWS\\_FROM\\_SELECTED\\_WESTERN\\_EUROPEAN\\_COUNTRIES\\_TO\\_INDIA\\_AN\\_HISTORICAL\\_AND\\_ECONOMIC\\_OUTLOOK](https://www.researchgate.net/publication/372908344_FDI_INFLOWS_FROM_SELECTED_WESTERN_EUROPEAN_COUNTRIES_TO_INDIA_AN_HISTORICAL_AND_ECONOMIC_OUTLOOK)
20. **GoI-MoD, AR-2015-16**, p.171.
21. **GoI-MoD, AR-2016-17**, p.108.
22. **RBI's Bulletin for August 2022 dt.18.08.2022 (Table No.34-Foreign Investment Inflow)**; RBI-AR from 2002-03 to 2021-22.
23. **GoI-MoD, AR-2007-08**, pp.62-63.
24. **MDSL, AR-2017-18**, Mumbai, p.14.
25. **MDSL, AR-2020-21**, Mumbai, p.30.
26. **MDSL, AR-2021-22**, Mumbai, p.39.
27. **GoI-MoD, AR-2009-10**, p.177.
28. **Lok Sabha unstarred question No.2043** by Sanjay Dina Patil, Answered by Defence Minister A.K. Antony on 19.08.2013.
29. **Lok Sabha unstarred question No.5284** by A.K. Antony, Answered by Defence Minister Manohar Parrikar on 24.04.2015.
30. **GoI, MoD, AR-2015-16**, p.171.
31. **GoI, MoD, AR-2016-17**, p.108.
32. **Lok Sabha unstarred question No.5284** by A.K. Antony, Answered by Defence Minister Manohar Parrikar on 24.04.2015.
33. **GoI, Press Information Bureau (Defence Wing)** on 13 July 2023.
34. **GoI-MoD, AR-2008-09**, p.85.
35. Bitzinger, R. A. (2014). **The Indian Defence Industry. India's Military Modernization: Challenges and Prospects**, Oxford University Press, New Delhi, 117-139.

36. Jackson, Paul; Munson, Kenneth; & Peacock, Lindsay (Eds.) (2005). *"ADA Tejas" in Jane's All The World's Aircraft 2005-06*. Coulsdon, Surrey, UK: Jane's Information Group Limited. p.195.
37. *GoI-MoD, AR-2013-14*, p.234.
38. B Mohammed, A., Asif Ali U, B., & Mriganka, D. (2018). *Productivity Improvement of Shakti Power Turbine Labyrinth Cage*. Project Report New Horizon College Of Engineering. Bangalore, p.6.
39. *HAL-AR-2015-16*, p.236.
40. *HAL-AR-2014-15*, p.14.
41. *HAL-AR-2017-18*, p.41.
42. *GoI-MoD, AR-2008-09*, p.67.
43. *GSL-AR-2019-20*, p.37.
44. *GoI-MoD, AR-2015-16*, p.42.
45. *GoI-MoD, AR-2003-04*, pp.43-44.
46. *Idem*.
47. *GoI-MoD, AR-2004-05*, p.49.
48. *Lok Sabha unstarred question No.3101 by Sugrib Singh, Answered by Defence Minister Pranab Mukherjee on 11.05.2006*.
49. *GoI-MoD, AR-2010-11*, p.44.
50. *GoI-MoD, AR-2013-14*, p.191.
51. *GoI-MoD, AR-2014-15*, p.43.
52. *GoI-MoD, AR-2015-16*, p.171.
53. *Lok Sabha unstarred question No.2346 by PR Senthil Nathan, Answered by Defence Minister Manohar Parrikar on 11.03.2016*.
54. *GoI-MoD, AR-2017-18*, p.29.
55. *GoI-MoD, AR-2018-19*, p.34.
56. *Lok Sabha Unstarred Question No.1498 by A.P. Jithender Reddy, Answered by Minister of State in The Ministry of Defence U.V. Krishnamraju on 01.08.2001*.
57. *Lok Sabha Unstarred Question No.1493 Answered by Subodh Roy, Answered by Minister of Defence George Fernandes on 27.02.2003*.
58. *GoI-MEA, AR-2021-22*, pp.135-136.
59. Boraz, S. C. (2009). *Maritime domain awareness: Myths and realities*. *Naval War College Review*, 62(3), 137-146.
60. Cheng, D. (2019). *The Importance of Maritime Domain Awareness for the Indo-Pacific Quad Countries*. The Heritage Foundation, Washington. No. 3392. March 6, 2019, pp.1-9.