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Chinese Perceptions on India's Long Range Missile Development: How Credible is India's Deterrence against China?

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India's long range missiles such as Agni IV and Agni V are the core of its deterrence against China. The scholarly Chinese perceptions of the capability of these missiles matter very much as an important variable in the planning and development of India's deterrence. The Chinese analysis of the Indian long range missile tests especially the Agni V reveals how the Chinese view the credibility of the Indian missile threat. Chinese specialists also discuss the prospects of India attaining a credible deterrence through long range missile development, and the counter strategies China should adopt against it. These perceptions furthermore point to Chinese thinking about the ideal security architecture in Asia and India's role in it.

Perceptions and Deterrence

The Indian missile tests of Agni IV and Agni V generated a vibrant discussion among the Chinese media and experts about India's missile capabilities and the effectiveness of the Indian missiles.

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Agni IV and Agni V missiles are meant to deter China. How does China view India's development of these missiles? For instance does China consider it as a threat? In that case whether they view it as threatening China's overwhelmingly favourable military balance with India? Does China view it as a credible threat which needs near term and long term counter measures? How the Chinese perceive Indian intentions and motivations in developing long range missiles will show how seriously they view the credibility of the Indian missile deterrence? These are the key questions this paper aims to address.

According to Alexander L. George and Richard Smoke "in its most general form, deterrence is simply the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefits."² Barry Buzan explains deterrence as "a policy of attempting to control the behaviour of other actors by the use of threats. The deterrer tries to convince the deterree that the costs of undertaking the actions that the deterrer wishes to prevent will be substantially higher than any gain that the deterree might anticipate making from the action."³ The basic logic of deterrence involves influencing perception of the other, to convince the hostile powers that any inimical actions will be costly and not worth the effort. Therefore perception about the capability of the potential adversary forms the important pillar of deterrence. Expounding the importance of perception in deterrence Robert Jervis states that "In the most elemental sense, deterrence depends on perceptions. But unless people are totally blind, we need not be concerned with the logical point that, if one actor's behavior is to influence another, it must be perceived. Rather what is important is that actors' perceptions often diverge both from "objective reality" (or later scholars' perceptions of it, which is as good a measure as we can have) and from the perceptions of other actors".⁴ Chinese literature on deterrence has emphasis on winning a war without fighting it. Without actual fighting, it relies heavily on psychological warfare, with a particular emphasis on deception.⁵ This is defined as the manipulation of the perception of the

² Alexander L. George and Richard Smoke, *Deterrence in American foreign policy: Theory and practice* (Columbia University Press, 1974), 11.

³ Barry Buzan, "deterrence," in *The Concise Oxford Dictionary of Politics* (Oxford University Press, 2009), <http://www.oxfordreference.com.libproxy1.nus.edu.sg/view/10.1093/acref/9780199207800.001.0001/acref-9780199207800-e-343>.

⁴ Robert Jervis, "Deterrence and Perception," *International Security*, Vol. 7, No. 3 (Winter, 1982-1983), p.3.

⁵ Du Rubo 杜汝波, "Sun Zi bing fa xinli zhan tanxi" 孙子兵法心理战探析 [An Analysis of Psychological Warfare in Sun Zi's "The Art of War"], *Bingzhou xueyuan xuebao* 滨州学院学报 vol. 21, no. 5 (October 2005): 17.

other.⁶ One of the detailed analyses of the causes of India-China war by Chinese scholars also points out the role of perception and deterrence, in which the Chinese failure to influence Indian perception and Indian failure to read Chinese deterrence signals led to the failure of Chinese deterrence and ultimately resulted in the 1962 India-China border war.⁷ In India's relationship with China, China's perception of non-credible deterrence of India gives diplomatic and strategic leverage to China. Missile forces being the core of India's nuclear deterrence, analyzing China's perception of India's increasing capabilities is important to understand the basis of Chinese strategy towards India and the future trajectory of Asian security.

Low-Tech and Not Mobile

Within few days after India's fourth successful test firing of the Nuclear capable Agni V Inter Continental Ballistic Missile on December 26, 2016, Chinese analysts pointed out the potential of the missile as a deterrent. According to them the composite materials used in the third stage of the missile greatly reduced its weight. Supposing that the Missile is launched from India's North East, the missile can reach China's North Eastern province of Harbin. If fired from different locations from India it can cover most part of the world except for North America and South America. It is considered as the best weapon to challenge China's military expansion into the Indian Ocean. It can carry nuclear weapon weighing more than one ton, and if deployed, India will enter the exclusive club of countries who own ICBMs. India's varied geography which includes mountain ranges, deserts, plateaus and hilly areas give excellent cover for the missile hiding and deployment, and a missile capable of moving in these terrains will be hard to detect and destroy, and from this point of view India has a strong deterrent in the form of a second strike capability.⁸ Because India

⁶ Gao Yuan 高原, "Sun Zi bing fa Daigei Xinli Zhan de Sikao yu qi shi" 《孙子兵法》带给心理战的思考与启示 [Explorations and Reflections on Psychological Warfare in Sun Zi's "The Art of War"], Chuan Cheng 传承 3 (2015): 126-127.

⁷ Liu Huijun 刘会军, "Weishe Shijiao xia de Zhong Yin bian jie zheng duan yanjiu" 威慑视角下的中印边界争端研究 [China- India Border Dispute: A Study from Deterrence Perspective] Nanya Yanjiu 南亚研究 3 (2011): 1-28.

⁸ "Yindu She daodan dui hua tiaoxin Zhongguo fanji wuxu dongfeng 41 jiu ling qi danhan 印度射导弹对华挑衅 中国反击无需东风 41 就令其胆寒" [India Provokes China by testing missile, China doesn't even need DF 41 to counter it and terrify it] last modified January 4, 2017, <http://mil.news.sina.com.cn/jssd/2017-01-04/doc-ifxzczzf3766142.shtml>. (accessed January 6, 2017).

used solid fuel engine in Agni V it have far better tactical maneuverability than the previous Indian missiles like Prithvi which uses liquid propellant engine. It can be launched from underground silos and is road mobile. It also constitutes Electronic warfare system and Electronic anti jamming system, so it can effectively avoid enemy's electronic interference and obstructions. India's agreement with Russia to share the signals of GLONASS (Russia's global navigation satellite system) will greatly enhance the precision targeting of the Agni V.⁹

However Chinese analysts believe that potential and the actual capabilities differ very much, and some of the short term advantages can be a long term disadvantages, and India is exaggerating lot of its claims about the capabilities of Agni V and overall missile capabilities of India.

The Chinese military expert Ge Lide 葛立德 thinks that the Indian claims of entering into the exclusive club of ICBM countries are not real, the 5000 km range missile is generally not considered as an ICBM, only those missiles which have more than 8000 km range being widely accepted as ICBM. India will have to do a lot of catch up with other ICBM possessing countries like US, Russia, England, France and China, and a mere capability in producing ICBM does not mean that India is in the club of countries who have more advanced capabilities in this area. According to Ge Lide, from a technology development point of view, India faces many difficulties in developing an ICBM by its own, for instance India faces technological difficulties in developing solid-propellant rocket engine and inertial components. Especially in the field of high-performance and high precision 'Inertial Navigation Systems' India doesn't have full independent capabilities. The technical issues will negatively affect Missile's range and kinematic¹⁰ accuracy.¹¹

⁹ Tian Bo 田博, ““liehuo-5” dandaodaodan: Yindu dui Shijie de jinggao “烈火-5”弹道导弹：印度对世界的警告” [Agni-5 ballistic missile: India's warning to the world] last modified January 3, 2017, http://www.china.com.cn/military/2017-01/03/content_40030135.htm. (accessed January 6, 2017).

¹⁰ Kinematic (dynamic) accuracy refers to the efficiency of the missile guidance system, with the increase in the range the Missile accuracy tends to decrease. With efficient real time missile guidance system, a long range missile can improve its accuracy. For general information on Kinematic (dynamic) accuracy see <http://www.globalsecurity.org/military/library/policy/army/fm/3-34-331/ch8.htm> (accessed March 4, 2017). For more technical information see Neil F. Palumbo, Ross A. Blauwkamp, and Justin M. Lloyd, “Basic Principles of Homing Guidance,” Johns Hopkins APL Technical Digest, Volume 29, Number 1 (2010), http://techdigest.jhuapl.edu/TD/td2901/Palumbo_Principles.pdf.

¹¹ “Yindu “liehuo-5” yuancheng daodan chenggong shishe 印度“烈火-5”远程弹道导弹成功试射” [India successfully test fired “Agni-5” long-range ballistic missile] last modified January 2, 2017, <http://news.cctv.com/2017/01/02/ARTIIXb3lyl2onXg3DnQAZwp170102.shtml>. (accessed January 4, 2017).

Chinese analysts also draw attention to the backwardness of India's technical capabilities, for instance India's Agni IV's heat shield can bear 4000 degree high temperature, and in comparison the missiles processed by the great powers can bear temperatures as high as 5000 degree. Agni V's first stage takes 90 seconds, second and third stages take 75 seconds; compared to this the missiles of established nuclear powers take by average only 60 seconds.¹²

Chinese military specialists also doubt Indian claims of missile mobility, especially the claims of road mobility of Agni V missile. Designed to carry 1.5 ton warhead the Agni V missile weighs 50 tons and combined with the weight of canister and carrying vehicle the total weight of the vehicle may go up to 80 tons, which according to the Chinese experts most of the Indian bridges cannot support. In view of the massive weight of missile carrying vehicle, the reliability of road mobile method will be highly questionable, and taking into consideration India's backward road and rail infrastructure the missile faces a negative infrastructure environment.¹³

If the missile is passing through a fixed road specially made for it, then this huge vehicle can be spotted easily by satellites, apart from this, if the (enemy) managed to destroy the bridges and routes dedicated to missile vehicle, then the Agni V will be an easy target for enemy forces.¹⁴ India is also yet to accumulate enough technological experience related to transporter erector launcher (TEL) vehicle to launch ICBMs.

Chinese specialists also extrapolate from Agni V's weight and range its suspected technical deficiencies. According to Chinese military specialists, if the reports of Agni V's weight of 50 ton and the range of 5000 km are correct, then the Agni V's technological capability is limited. Currently the long-range missiles of United States and Russia, which have more than 8000 km range weigh only slightly more than 40 tons; for instance, Russia's ICBM 'Topol-M' with a range of about 10000 km weighs only 47 tons. A Missile like Agni V with a weight of 50 tons can attain

¹² "Yindu She daodan dui hua tiaoxin Zhongguo fanji wuxu dongfeng 41 jiu ling qi danhan 印度射导弹对华挑衅 中国反击无需东风 41 就令其胆寒." (accessed January 6, 2017).

¹³ Tian Bo 田博, (accessed January 6, 2017).

¹⁴ "Yindu She daodan dui hua tiaoxin Zhongguo fanji wuxu dongfeng 41 jiu ling qi danhan 印度射导弹对华挑衅 中国反击无需东风 41 就令其胆寒." (accessed January 6, 2017).

a range of only up to 5500 km, this illustrates that its casting material, propellant, on-board equipment miniaturization are yet to attain global standards.¹⁵

ICBMs are complex information technology systems, needing the support of perfect satellite guidance system, most modern advanced composite materials, impeccable weapons platforms etc. India is yet to have its own satellite navigation system, according to the Chinese analysts.

The Pain and Pleasure of Dependency

Chinese media analysis puts India's large scale dependency on the import of foreign weapons systems and technologies as a great obstacle for India to develop independent deterrent capabilities. According to Chinese analysts, the Indian government has been for a long time advocating indigenous production of weapons systems, but because of the weak national defence industry, India will have no choice but to buy weapons from outside for a long time. This choice of expediency now became the normal. For the past decade India has continuously been the largest importer of weapons. It is easy for India to buy weapons because it has excellent relations with the militarily advanced Western countries and Russia. Though India reports that Agni V contains 80% indigenous components, it also contains advanced technological capabilities from Russia and US. In February 2013 India's Defence Research and Development Organisation (DRDO) chief VK Saraswat announced that Agni VI with far longer range than Agni V will enter its production stage, but considering that Agni V is not yet deployed and not a proven or matured system, the development and deployment of Agni VI will only be in the distant future.

Chinese analysts point to India's other "indigenous" weapon system projects such as *Arjun Tank* and *Tejas Light Combat Aircraft*, both projects took decades and large cost overruns, which ended up using foreign components and have questionable efficiency and combat utility.¹⁶

¹⁵ Li Mei 李梅, "Lie huo 5 zhan li fenxi" "烈火"5 战力分析 [Analyzing Agni V's combat capability], Bing qi Zhi shi 兵器知识 4 (2015): 31; "Gao qing: Yindu shouci Jidong fashe liehuo 5 daodan 高清: 印度首次机动发射烈火 5 导弹" [India for the first time conducts mobile launch of Agni V], last modified February 2, 2015, <http://military.people.com.cn/n/2015/0202/c1011-26490034.html>. (accessed January 2, 2017).

¹⁶ Tian Bo 田博, (accessed January 6, 2017).

Chinese military analysts also doubt Indian claims of accuracy of Agni V Missile. According to them India's ICBM development, especially the guidance system, is greatly aided by Russia. In 2011, during India's then Defence Minister A K Antony's visit to Russia, with the representatives of DRDO, Russia publicly announced that it could help India to develop an ICBM. Chinese analysts argue that, because Russia itself doesn't have high quality guidance and control systems, India might have mostly procured low quality and openly available components, or even reengineered them. So, it is hard to believe that Indian missiles, especially Agni V, which relies mostly on Russian technology and other low-tech technologies, have high accuracy.¹⁷

Chinese specialists also argue that Indian defense infrastructure is weak, for instance they cite Indian Defence Ministry's statistics that between 2003 and 2007, 1107 DRDO employees resigned from their jobs, mainly because of their low pay.¹⁸

India's autonomous production of weapons is only 30% of its requirements, among it the indigenous production of modern weapons is only 15%, and there is a gap of 15 years between planned target of military equipment procurement and the actual situation.¹⁹

Not Enough Tests

The Indian missile tests, the test firing of Agni V on 26 December 2016 and test firing of Agni IV on 2 January 2017 were compared with the ICBM ambitions of North Korea, and the Chinese analysts believe that a mere possession of missiles or even deployment does not imply that the missiles have war fighting capabilities. Agni IV Missile was tested 6 times in the last five years. It failed once and succeeded five times, and since 2012 Agni V was tested 4 times successfully.

¹⁷ 侯知健 Hou Zhijian, "Yindu di 4 ci shishe liehuo 5 daodan shecheng yijing neng fugai Zhong guo quan jing 印度第4次试射烈火5导弹射程已经能覆盖中国全境" [4th time India test fires Agni V missile range covers all of China], last modified December 23, 2016, http://junshi.xilu.com/jsgc/20161223/1000010000974154_2.html. (accessed January 2, 2017).

¹⁸ Wang Shi 王石, Tao duanfang 陶短房 and Luo Shanai 罗山爱, "Yindu Daodan bi Zhongguo qiang ma?" 印度导弹比中国强吗? [Are Indian Missiles Better than Chinese Missiles] Kexue da guanyuan 科学大观园 21 (2011): 41.

¹⁹ Wang Lei 王磊, Liao Zhengjun 廖政军, "Yindu Shishe 'liehuo-5' dandao daodan" 印度试射“烈火—5”弹道导弹 [India test fires Agni V Ballistic Missile] Ren Min Ri Bao 人民日报, April 20, 2012, 021.

However North Korea is still on the initial steps of developing an ICBM, North Korea's Unha-3 Rocket Launch in 2016 can only be considered as a preliminary step towards the development of an ICBM. The Chinese analysis states that the tests conducted by India and North Korea are not enough for a proven and capable combat capability of the missiles. The Chinese analysts compare Indian tests with the evolution of the missile capabilities of the advanced countries, especially the development of Bulava missiles by Russia.²⁰ The nuclear powers who have ICBMs in active service, all went through a decade or even decades of accumulated experience in the development of ICBMs. Even though Russia does have a wealth of experience in developing nuclear missile technology, they conducted extensive test firing of Bulava submarine launched missile, before it entered active Russian military service. In 2004 Bulava Missile projectile had undergone underwater and water surface trial tests. In five years after its first flight test in September 2005, Bulava Missile was test fired 13 times. Between year 2011 and 2014 the Bulava Missile was tested 2 times every year by average; by this way the missile was continuously improved, its design finalized and it was mass produced and deployed. The full development of the Bulava took almost 10 years, compared to this India's and North Korea's claim of having ICBM capability just after a few tests is too hasty and exaggerated.²¹

They also point out that Agni II, after 3 successful tests, was actively deployed, however in 2009 during the user trial exercises it failed, showing that the missile is not matured enough to be deployed.²² India is still in the beginning stages of the ICBM, the established nuclear powers like US and Russia continuously spot check their strategic missiles like Minuteman 3 and Topol by conducting random test flights; compared to established missile powers' experience in missile testing India is still in the initial stages. Further pointing out India's weakness in weaponing missiles, Chinese specialists believe that India is still to master the technology of miniaturization of nuclear weapons, as well as the adding of nuclear weapons to the missiles, so India as well as North Korea have still a long way to cover to fully become members of ICBM countries with war

²⁰ Du Dongdong 杜东冬, "Yindu Chaoxian Zhunbei hao Zhoujidaodan? Liezhuang bu deng yu you Zhan dou li" 印度朝鲜准备好洲际导弹? 列装不等于有战斗力 [India and North Korea all set for ICBM? Mere deployment does not mean combat effectiveness] Huan qiu shi bao 环球时报, January 4, 2017, <http://mil.huanqiu.com/world/2017-01/9900960.html>. (accessed January 6, 2017).

²¹ Ibid.

²² Tian Bo 田博, (accessed January 6, 2017).

fighting capabilities.²³ The analysis of some Indian military specialists also supports the Chinese view that Indian missiles are not sufficiently tested. According to Verghese Koithara, “Compared to the missiles of older NWS (Nuclear Weapons State), India’s strategic missiles have undergone very few tests before induction. Before its first operational firing from the USS George Washington in July 1960, the Polaris A-1 was tested 79 times; Polaris A-2 28 times and Polaris A-3 38 times. An adequate number of tests involving conditions, that are as close to deployment conditions as possible, are essential for assured delivery, as well as for confidence down the chain from NCA (National Command Authority) to missile crews”.²⁴

India’s Great Power Ambitions

China always attributed India’s weapons development activities to India’s ambition to become a great power. According to Chinese analysts India is one of the first countries in Asia to develop aircraft carrier, carry out nuclear tests, ballistic missile tests, all, to achieve the prestige and status of a great power. Being a country with a long history and vast territory, India has a long standing great power complex. All Indian governments have this thinking model. With the gradual expansion of economic strength, India began to seek the status of a military great power. Chinese analysts further point to India’s nuclear tests in 1998 and strategic missile programmes, in spite of international sanctions and opposition, as India’s determination to achieve great power status. Chinese also believe that India still follows Colonial British India’s geostrategic thinking; according to this thinking India is the natural master of the Indian Ocean, and this idea also does have a very wide acceptance in India’s internal strategic discourse. Chinese also believe that under the impact of this thinking India’s defence posture turned from defensive defence to strategic offence. India considers Pakistan and China as main hurdles on its pursuit of hegemony in South Asia and the Indian Ocean region. One of the Chinese analysis even attributes the Agni V missile development to the failure of India’s initial long term strategy; according to this analysis, India wanted more than half of its navy deployed near Pakistan, and large number of troops to be deployed near India-China border. Because of the fast development of China’s power projection

²³ Du Dongdong 杜东冬, (accessed January 6, 2017).

²⁴ Verghese Koithara, *Managing India’s Nuclear Forces* (Washington: Brookings Institution Press, 2012), 131-132.

capabilities India's military advantages gradually became redundant. It is under these circumstances that India developed Agni V.²⁵

Chinese also think that India's atomic arsenal development far outstretched its claim of developing a minimum nuclear deterrent. India's testing of Agni V, development of nuclear submarine *Arihant*, India's reported plans to buy strategic Tu-22M3 long range bombers from Russia, all indicate that India is slowly acquiring the basic characteristics of a nuclear great power.

A Part of Western Containment Strategy

Chinese specialists interpret the US –India military relations as an initiative to contain China. According to them US used to be against India developing ICBM and nuclear weapons, during the 1990s US even sanctioned India because of its ICBM and nuclear weapon development projects. India already broke United Nations restrictions on nuclear weapons development and missile development; however, the western countries gave India many concessions despite its “wrongdoing”.²⁶

Chinese specialists believe that United States is supporting India in its efforts of ICBM and nuclear weapons development. They point to the United States-India joint statement published during the India's Prime Minister Narendra Modi's visit to US in October 2014, in which United States declared its intention to help India enter the four important nuclear technology and military technology regimes and institutions (Nuclear Suppliers Group, Missile Technology Control Regime (MTCR), Wassenaar Agreement, Australia Group).²⁷ They also point to the fact that not long before these four groups used to exclude India. On June 7, 2016 India became the 35th

²⁵ Tian Bo 田博, (accessed January 6, 2017).

²⁶ “Ping lun: Yindu you le liehuo 5 bie hai guo tou jiaqi weiba you haochu” 评论：印度有了烈火 5 别嗨过头 夹起尾巴有好处 [Commentary: India doesn't need to overhype Agni V it is better to play it down], last modified January 4, 2017, <http://mil.huanqiu.com/observation/2017-01/9901081.html>. (accessed January 6, 2017).

²⁷ Liang Fulong 梁福龙 “Yindu Huozhun Jiaru Xifang Daodan Julebu liyu huo gaoduan jishu” 印度获准加入西方导弹“俱乐部” 利于获高端技术 [India gains permission to enter Western missile club and easy access to high-end technology], last modified June 15, 2016, <http://military.china.com/news2/569/20160615/22874017.html>. (accessed December 26, 2016).

member of MTCR, the Chinese specialists interpreted it as a strategic move by United States than by India. According to Chinese missile specialist Yang Chengjun (杨承军) MTCR is organized under the leadership of United States, and its primary duty is to control high end and cutting edge missile technology, and share high tech and missile tech among the members. “US letting India in is based on America’s own strategic necessities”. According to Yang Chengjun India’s accession to MTCR can lead to progressive closing of the missile technology gap between India and China.²⁸

Even though in the near future India may not be able to obtain permanent membership in UN Security Council, by actively developing strategic missiles India can at least obtain an equal status in terms of nuclear missile capabilities with the five permanent members of the Security Council. Chinese specialists also term India’s practice of publicly speaking about neighboring countries as the targets of its ICBM development as worrisome.²⁹

According to Chinese media analysis, China cannot prevent India from developing ICBM capabilities, but also believe that since the West is not adhering to the nonproliferation principles and norms it created and propagated, then China also doesn’t need to adhere. In order to balance India’s missile development Chinese specialists indicate that China will help Pakistan in its nuclear programme and strategic missile development.³⁰

Chinese Foreign Ministry Spokesperson Hua Chunying on December 27, 2016, expressed Chinese position on India’s Agni V missile test by saying that “We have noted reports on India’s test fire of Agni-V ballistic missile. The UN Security Council has explicit regulations on whether India can develop ballistic missiles capable of carrying nuclear weapons. China always maintains that preserving the strategic balance and stability in South Asia is conducive to peace and prosperity

²⁸ Chen Chen 陈晨, Guo Yuandan 郭媛丹 and Zhang Yichi 张亦驰, “Yindu Jiaru daodan Jingying Julebu Xuanyao zaici Zhansheng Zhongguo” 印度加入导弹精英俱乐部 炫耀再次战胜中国 [India Joins elite missile club and flaunts it as a victory over China] Huan qiu shi bao 环球时报 June 28, 2016, http://mil.huanqiu.com/observation/2016-06/9092129_3.html. (accessed December 24, 2016).

²⁹ Wang Peng 王鹏, “Zhuan Jia: yindu dali fazhan dandao daodan yizai weishe zhongguo” 专家：印度大力发展弹道导弹意在威慑中国 [Expert: The intention behind India’s rapid development of ballistic missiles is to deter China], last modified January 13, 2017, http://mil.gmw.cn/2017-01/13/content_23464779.htm, (accessed January 15, 2017).

³⁰ “Ping lun: Yindu you le liehuo 5 bie hai guo tou jiaqi weiba you haochu”, (accessed January 6, 2017).

of regional countries and beyond”.³¹The statement implies that Chinese strategy in South Asian region seeks military balance between India and Pakistan, because Pakistan is the only country in South Asia seeking a strategic balance with India.

Is it a threat to China?

The Chinese are always provoked by Indian media's and officials' comparison between India's missile capabilities and Chinese missile capabilities, these comparisons coincide with those by the various strata of Indian society especially Indian officials, media and defence specialists. Chinese dismiss these comparisons and always reiterate that India is not a threat to China. According to Chinese media India's strategic defensive planning is centered on China. However, China should not be provoked by the Indian anti-China rhetoric, because India is no match to China militarily and economically. India's GDP is only one fifth of China's, and China's strategic missiles already have a global range (Table I). China's military industrial capacity and war fighting potential are far more advanced than India's and not comparable at all.³² Though Chinese warn themselves not to get provoked, many Chinese media statements indicate that the Indian media's and experts' comparisons are successful in provoking the Chinese. For instance, after the first test of Agni V in 2012, the Indian media's depiction of it as a “China killer” invited strong reactions from Chinese media and defence specialists. The overenthusiastic Indian reactions to the first test of the Agni V was depicted as immature. Indian depiction of the missile as targeting China and comparisons with China's missiles was received with sarcasm; according to Chinese media “Chinese citizens didn't feel threatened by Indian missile test, they are surprised that an aspiring great power like India till that time don't have an ICBM”. Chinese media point out that China had long before, in 1980 itself, conducted its first test firing of an 8000 km range missile, and in the near future compared to Chinese missiles Indian missiles can be only considered as a group of “dwarfs”.³³

³¹ Foreign Ministry Spokesperson Hua Chunying's Regular Press Conference on December 27, 2016, Foreign Ministry of People's Republic of China, December 27, 2016, http://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1427046.shtml. (accessed January 4, 2017).

³² “Ping lun: Yindu you le lichuo 5 bie hai guo tou jiaqi weiba you haochu”, (accessed January 6, 2017).

³³ “Yindu Zhouji daodan dui Zhongguo weixie jihe” 印度洲际导弹对中国威胁几何 [How threatening is the Indian ICBM for China], *gong chan dang yuan 共产党员* 10 (2012):43-43.

The Agni V test of 2016 also received similar reactions from the Chinese media and specialists, which included sarcasm about India's tendency to compare Chinese and Indian capabilities; for instance, according to one Chinese expert's analysis "comparing with India or competing with India is embarrassing for China, it is considered as self-depreciating". Further they consider the comparisons are inevitable because "for India China became a bench mark, we (*Chinese*) should understand India's desire for improvement and urge to do better". China also warns India that, "with a few weapons you (*India*) should not think of yourself (*India*) as a nuclear great power"... , and "it will be long time before the world is ready for a powerful India". ³⁴

Figure I³⁵: A Comparison Between China and India's Land Based Strategic Ballistic Missile Forces

CHINA/Type	Number of launchers	Year deployed	Range (kilometers)	Warhead x yield (kilotons)	Number of warheads
DF-4	~10	1980	5500+	1 × 3300	~10
DF-5A	~10	1981	13,000+	1 × 4000–5000	~10
DF-5B	~10	2015	~12,000	3 × 200–300	~30
DF-15	?	1990	600	1 × ?	?
DF-21	~80	1991, 2000, 2016	2150	1 × 200–300	~80
DF-26	?	(2017)	4000+	1 × 200–300	?
DF-31	~8	2006	7000+	1 × 200–300	~8
DF-31A	~25	2007	11,000+	1 × 200–300	~25
DF-41	n.a.	?	?	n.a.	n.a.
INDIA/Type					
Prithvi-2	~24	2003	250	1 × 12	~24
Agni-1	~20	2007	700+	1 × 40	~20
Agni-2	~8	2011	2,000+	1 × 40	~8
Agni-3	~4	2014?	3,200+	1 × 40	~4
Agni-4	N.A.	(2016)	3,500+	1 × 40	N.A.
Agni-5	N.A.	(2017)	5,200+	1 × 40	N.A.

³⁴ "Ping lun: Yindu you le liehuo 5 bie hai guo tou jiaqi weiba you haochu", (accessed January 6, 2017).

³⁵ Hans M. Kristensen and Robert S. Norris, "Indian nuclear forces, 2015," Bulletin of the Atomic Scientists, VOL. 71, NO.5, 79, <http://www.tandfonline.com/doi/pdf/10.1177/0096340215599788?needAccess=true>; Hans M. Kristensen and Robert S. Norris, "Chinese nuclear forces, 2016," Bulletin of the Atomic Scientists, VOL. 72, NO. 4, 206, <http://www.tandfonline.com/doi/pdf/10.1080/00963402.2016.1194054>.

Chinese scrutiny of Indian missile tests began in an extensive way since India first tested Agni V. On 7 February 2012 India successfully test fired Agni III missile and on 19 April 2012 Agni V was also test fired successfully. Both tests triggered an extensive analysis of India's missile capabilities by Chinese experts. Some of the analysis tried to negate the then Agni Programme director Avinash Chander's claim that in terms of "accuracy and technology-wise" Agni 3 is better than DF 21.³⁶ Refuting this claim, Chinese experts pointed out that DF 21 missile entered China's military service in the beginning of 1990s and over the years evolved into a mature and reliable weapon system, in contrast Agni III is still in a preliminary testing stage.³⁷ Since the year 2012 India's long range missile tests prompted fierce criticism from Chinese media and analysts. It also followed a familiar pattern of explaining how superior and efficient Chinese missiles are compared to Indian missiles; according to the Chinese experts "Compared to Agni V missiles China's DF-31 missiles with stable performance and reliability are actively deployed for many decades. Its range is around 11200 km, in addition to it China has a developed road infrastructure, so it can strike at any target in the world from different geographical locations in China. If India dares to initiate a quarrel then DF-31 is enough to deter India. No need to mention DF-41 which can carry 10 nuclear warheads at the same time".³⁸

Chinese experts also refer to geostrategic and military superiority of China; for instance according to one Chinese media analysis "Indian capital New Delhi is only 400 km away from Tibet, and from Indian borders to Beijing the distance is around 4000 km. PLA [People's Liberation Army] also holds credible missile defense capabilities, and it is perfectly capable of intercepting Agni V striking important targets in China. China's short range tactical missiles can also constitute a sizable threat to India. If India wants to challenge China India has to deploy several expensive ICBMs, which definitely will be a drag on Indian economy".³⁹

³⁶ "India Ready to Test Fire 5000 Km range Agni –V within a Year," *The Economic Times*, February 10, 2010, <http://economictimes.indiatimes.com/news/politics-and-nation/india-ready-to-testfire-5000-km-range-agni-v-within-a-year/articleshow/5557456.cms>.

³⁷ Shao Yongling 邵永灵, "Yindu daodan mianmian guan" 印度导弹面面观 [Various Aspects of India's Missiles], *qingnian yu shehui* 青年与社会 4 (2012):25.

³⁸ "Yindu She daodan dui hua tiaoxin Zhongguo fanji wuxu dongfeng 41 jiu ling qi danhan 印度射导弹对华挑衅 中国反击无需东风 41 就令其胆寒." (accessed January 6, 2017).

³⁹ Ibid.

Conclusion

India's ability to deter China hinges on how China perceives India's capabilities and intentions behind developing those capabilities. India's development of nuclear capable long range missiles, especially Agni V is considered as a weapon to deter China. Chinese analysis about how efficient Agni V is follows a pattern of acknowledging its potential and at the same time pointing out several drawbacks and deficiencies which make it dysfunctional in a real combat situation. Chinese analysts believe that India does not have the capability to efficiently move, hide and fire Agni V missiles. Chinese analysts also point out India's defence industry's structural weaknesses such as low technological efficiency, labour attrition, over-reliance on foreign countries, especially India's reliance on Russia for its navigation system as a drag on developing efficient missile forces. Chinese compare Indian capabilities with other established nuclear powers and conclude that India is exaggerating its claims about the readiness of the missiles for deployment, and consider that India's missile capabilities are not mature enough to be deployed.

Apart from acknowledging India's motivation to deter China through developing long range missiles, Chinese analysts also ascribe India's ICBM ambitions to India's pursuit of hegemony in Indian Ocean Region and South Asia, as well as its longstanding desire to become a great power of consequence. Accusing India of great power complex also signals the Chinese thinking that Indian aspirations to become a great power or even regional power may not be acceptable to China.

Chinese specialists also refer to the overwhelming superiority China enjoys over India in terms of economy and defence, and how advanced and far ahead China's missile inventory is and technical capabilities in comparison to India's. This point is emphasized in most of the Chinese analysis of Indian missile capability in order to show that Indian missile development at its current stage does not pose a threat to China.

Though China tries to trivialize India's ICBM development, it also acknowledges that with the gradual improvement in its capabilities, eventually India will achieve a more credible deterrence against China. China's increasing and detailed scrutiny of India's missile development, and strong reactions against it, itself point to the fact that India is successful in the initial purposes of

deterrence, which is, to make China unsure of maintaining its current superiority over India in terms of missile forces. It also shows that China believes that Indian missile forces will eventually become a potent force in the regional security equation. This may result in less leverage for China in its relations with India, especially it will constrain China from taking actions like military “intrusions” in the disputed China-India border areas. A credible deterrent will also embolden India to take assertive actions on the disputed border regions with China.

Chinese media reports and official reactions to Indian ICBM development suggest that China should seek to maintain strategic parity between India and Pakistan in South Asia, and that China will actively aid in strengthening Pakistani missile capabilities and other deterrent capabilities against India. From the first test of Agni V itself, the most important factor which Chinese analysts noticed was America’s indirect support for India, this support became a more encouragement with India joining the MTCR. The MTCR membership will greatly enhance India’s deterrent capabilities and help it to bridge the missile gap between itself and China. The Chinese view India as a main tool of the US in containing China and believe that without the help from the US India will not have prospects of achieving deterrent capabilities against China.

With the support of the United States India may eventually achieve a credible deterrence. It can help India to more effectively balance China in the South Asian region. This may also help India project itself as a reliable security player in the Asian region. In fact, an increase in India’s deterrence capabilities can be considered as a public good for the world at large because India can then act as a stable pillar in the emerging Asian security architecture.

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