

## "GEO-STRATEGIC ENVIRONMENT OF KARAKORAM REGION WITH PARTICULAR REFERENCE TO SIACHEN GLACIER"

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### INTRODUCTION

In recent years there have been numerous discussions on the Siachen issue. Opinions have been expressed emphasising futility of deploying man-power and material on a piece of land that has no importance at all for India. This paper is an attempt to place the Siachen issue in its proper perspective and highlight its importance for the security of India.

Kashmir has been particularly a sore point between India and Pakistan since Independence. As a result, both the countries have been in a state of perpetual cold war and this cold war has turned hot at least four times (in 1947, 65, 71 and 99). There have been several minor skirmishes during mid-eighties on border issue and SIACHEN has become the bone of contention between India and Pakistan, and the traditional abode of gods has now become the world's highest battle-ground.

### BACKGROUND / GENESIS

The Siachen problem has its origin in the armed conflict over the former princely state of Jammu and Kashmir following the partition. Pakistan managed to secure roughly about one third of the state after the fifteen months long undeclared war between India and Pakistan. In 1949 a Cease Fire Line was negotiated under United Nations' auspices (signed in Karachi), drawn between the

position of the two armies when the hostilities ended. This C.F.L. runs approximately 800 kilometers, from Mannawar-Wali in Punjab plains to Keran, north of Tithwal, from where it runs east to Chalunka then turns north eastwards to a point 20 Kilometers north of the Shyok river or 30 Kilometes south of Gyong (Map Gridpoint NJ 9842). From this point the line was said to remain "Northwards". As north of this point (NH 9842) was a high mountainous area - snow bound, inaccessible, virtually no man's land right upto Chinese frontier in the vicinity of the Karakoram Pass. No one then thought that any one would even go there, much less try and hold or fight for that land. As a result, no attempt was made at Karachi to delineate the ceasefire line (CFL) north of NJ 9842 up to the Chinese border. There was vague statement that from this point (NJ 9842) it moved north to the glacier.

In 1971 Indo-Pak war the Indian forces pushed back the Pakistani troops in the Kargil and Turtok sector of Pak occupied Kashmir. According to the new accord (Simla-1972) the new delineated line of control runs as follows :

From Mannawar Wali the Line of Control (LOC) turns Northwest up to a point three miles west of Jhanger (with Chhamb inclusive to Pakistan) from where it turns northeast wards Chet in the Kargil and Chor Batla in

Turtok sector. From there the line of control runs northeast towards Thang (inclusive to India), then eastwards joining the glacier. In other words, the watershed to the west of the glacier became the demarcation line. The Pakistanis apparently drew a line northward from Thang to Karakoram Pass cutting across the Nubra Valley and treated Dichen glacier as their territory. Since this area is undemarcated, Pakistan has been claiming it and insists that Siachen glacier forms part of their territory (Northern Area of Pakistan) and they have started showing this area, including Thang, Nubra Valley and Siachen as part of Pakistan, as in case of Azad Kashmir (Pak administered sector of the disputed territory of J & K). But India claims that the glacier lies within the jurisdiction of India's Jammu & Kashmir state and is therefore an integral part of India.

Since this area remained undemarcated in both the accords. Firstly there was no war fought in Karakoram area, there was no dispute with regard to the claim of this territory. Secondly due to the inaccessibility of the region, its terrain character, permafrost nature, inhospitable topography and extreme weather conditions where no life can survive under normal conditions, it is a kind of forbidden-land which no nation was ever likely to claim. But things have changed with the changing technology and geopolitical interests. After 1984, Pakistan began showing interest in this area, as it has better contiguity with the area which it flanks from the west and the north (territory ceded to China).

**Geographical Location:** The Siachen (35°-30' N 77°-30'E) is situated at the extreme northwest edge of the Indian Sub-continent immediately south of the Chinese border in the eastern Karakoram range. The glacier is located adjacent to the Xinjiang border in the

remote and largely uninhabited part of Baltistan district.

Siachen glacier lies in an area where India and China meet in the north central part of Ladakh, in between the Pak-occupied Kashmir (in the west) Aksaichin plateau (in the east) and south of the territory ceded by Pakistan to China in the proximity of K2 and Aghil mountain. (Fig. 1). Shaksgham area.

The distance between eastern-most edge of the Wakhan Corridor and the western-most edge of the Siachen is 250 kilometers and the nearest point of the Karakoram Highway from the Siachen glacier is about 150 kilometers and SKARDU (in POK) is about 100 kilometers southwest of the glacier.

**Access to Siachen :** Access to Siachen is quite difficult due to steep gradient, inhospitable topography, permafrost area, high altitude problems, avalanches, weather hazards, snow blizzards, icy cold winds of high intensity and rarefied atmosphere. However, access to Siachen glacier is :

- (i) from western side (POK) via Gilgit, Skardu - Khapalu, Thang and Shyok valley.
- (ii) from Kargil & Leh via Khardungla, on the southern side.
- (iii) from eastern side via Saser and Teram Shehr Glacier.

From Pak side there are good roads coming upto GHYARI, GYONG and CHUPLUP and from Indian side they are upto Nubra snout, beyond that one has to traverse the distance on foot over the moraines and the glacier.

**Terrain and Weather Conditions :** This is the most heavily glaciated region outside the sub-polar latitudes. There are several glaciers scattered along the mighty Karakoram and there are several mountain peaks and passes

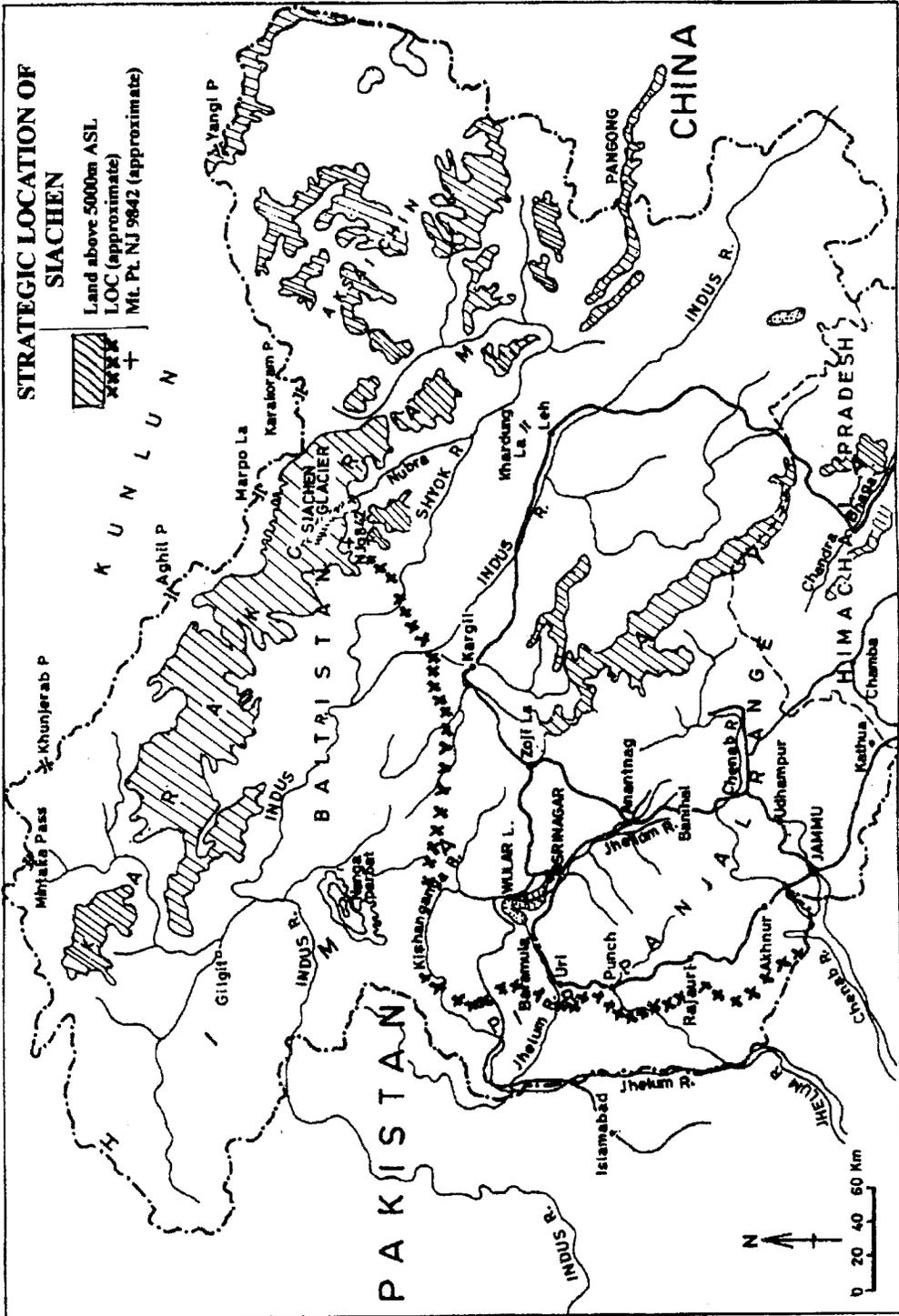


Fig. 1 : Siachen Glacier Region

which intersect the Karakoram (such as Indira Col, Siala, Bilafondla / Saltoro pass etc.). Siachen glacier, which is the second biggest glacier in the world, extends from northwest to southeast direction and is 74 kilometer long from Nubra snout to Indira Col. This glacier is 2 to 5 km in width and is surrounded by icy mountain peaks with ranges from 20,000 to 26,000 feet. The Saltora ridge runs along the western flank of the Siachen and along the eastern flank are the Mo-Muz Tagh, Hisper Muz-Tagh and Teram ridge which are offshoots of the Karakoram range. The Karakoram pass highway runs further east of it which connects Daulat Beg Oldi, Seda plain of Ladakh with Parmik, Saser and Leh.

Siachen glacier, running in north-southerly direction from Sia Kangri to Nubra snout, which gradually rises from the source of Nubra river (snout) upto its source (11,000 - 19,000 feet) is fed by numerous minor and major glaciers rising from the surrounding mountain peaks (Baltoro-Kangri, Saltoro Kangri, Serpi Kangri, Aling Kangri, Saser Kangri, Apsara and Teram Kangri).

Half of the glacier in length (from the source of river Nubra upwards) remains covered with moraines and is infested with seraces, scree, boulders, lakes and fast flowing streams, wide and deep crevices with huge pinnacles.

**Weather conditions & Environmental Hazards :** The weather in Siachen is characterised by inclemency both in summer and winter by atmospheric disturbances such as thunder storm, snow storm and cloud bursts. Temperature ranges between - 10° to -15° C in summer to 40C in winter and in extreme cold it drops to - 55°C. Winds are generally gentle to hurricane type from 18-80 knot per hour depending

upon the particular area and season. Air pressure, density, temperature, cloudiness and visibility vary with the increase in altitude. The most important environmental conditions which troops at high altitude face are : (Table No. 1)

- (i) Rarefied atmosphere
- (ii) Low temperature and humidity
- (iii) Increased intensity of sunshine
- (vi) Snow blizzards
- (v) Isolation and monotonous surroundings.

The chief health hazard arises from the twin effects of cold and hypoxia which increases progressively with altitude. It affects the troops physically and physiologically when the variations are of a high order. The main medical problems are mountain sickness, pulmonary oedema, cerebral oedema (when fluid collects in lungs and brain) hypertension, headache, nausea, vomiting, giddiness, loss of appetite, sleeplessness (insomnia) mental confusion and hallucination, frost-bite, chilblains, trench foot etc.

### **Geo-Political and Geo-strategic Importance and Interests of the Vicinal Countries :**

The strategic location of Siachen in relation to its common boundary with China and Pakistan and proximity to the Soviet Union and Afghanistan make the question of its security and occupation a critical one. That is why Pakistan has been co-ordinating military activities with China in order to grab this vital area to contain India.

India claims that the glacier lies within the jurisdiction of India's Jammu & Kashmir state and is therefore an integral part of India. On the other hand, Pakistan claims that it lies within the Pak-administered sector of the disputed territory of J & K (Pak Occupied Kashmir).

**Table 1**

**Altitude, Pressure, Temperature, Oxygen Partial Pressure and %**

Altitude		Pressure mm	Temperature		Oxygen Partial Pressure (mm of hg)	Environmental Oxygen Percentage
Feet	Metre		C	Decrease		
0	0	760.0	15	0	159.2	20.96
1000	305	733.0	13	-2	153.6	20.18
2000	610	706.0	11	-4	148.1	19.46
4000	1619	656.4	7	-8	137.5	18.07
6000	1829	609.0	3	-12	127.6	16.77
8000	2438	564.4	-1	-16	118.2	15.54
10000	3048	522.6	-5	-20	109.5	14.39
12000	3658	483.2	-9	-24	101.2	13.31
15000	4572	428.8	-15	-30	90.5	11.81
18000	5486	379.4	-21	-26	79.5	10.45
20000	6096	349.2	-25	-40	73.1	9.61

**India's Territorial claims to Siachen glacier area :**

1. By virtue of the act of accession in 1947, all of the J & K state including Northern Area and Ladakh is an integral part of India and the glacier lies within the jurisdiction of Jammu and Kashmir.
2. In Karachi accord (July, 1949) after fifteen months war, a Cease Fire Line was established in an agreement under the auspices of the United Nations. The Siachen area lies east of C.F. L. and Azad Kashmir which is within the jurisdiction of India.
3. Pakistan, at the time of the agreement signed with China in March 1963, did not claim the ownership of the territory lying south of the newly agreed ad hoc border with China.
4. Even in the Simla Accord signed in 1972 there was no mention of Siachen neither did Pakistan raise any question about it.

5. Pakistan's reluctance to make open official acknowledgement of its unilateral extension of the L.O.C. is a tacit admission of its illegality. Indeed Pakistan sought to play down the skirmishes over the glacier precisely to avoid attention to its illegal extension of L.O.C.

**Pakistan's Official Territorial Claim :**

1. The Siachen lies outside the formally agreed L.O.C. in Jammu & Kashmir state but it is an integral part of Pakistan's Northern areas and is situated in an area of which Pakistan has asserted continuous administrative control ever since Independence.
2. International Mountaineering Expeditions have been seeking Pakistani permission to enter the Siachen area, K2 and some other peaks in the eastern Karakoram region.
3. Many American and International mountaineering journals, magazines and maps have shown Siachen area as a part of

Pakistan. Besides, a number of Western countries have published maps and atlases in early eighties where Siachen has been shown as part of Azad / Occupied Kashmir :

- (i) The National Geographic Society's Atlas of the world.
- (ii) The University of Chicago's - Historical Atlas of southern Asia.
- (iii) Times Atlas of the World from London.
- (iv) Reader's Digest World Atlas.
- (v) American Alpine journal (1981-82).

#### **Pakistan's Geo-Political Interests :**

1. Pakistan has been co-ordinating military activities with China in a bid to establish suzerainty over the Siachen glacier in Ladakh region which is the most vital area lying between the Pak occupied Kashmir and Chinese occupied Ladakh (Aksaichin plateau).
2. Pakistan is interested in capturing Siachen area in order to establish common border with China in this region / area / sector / zone and to block the Saser-Karakoram Pass Highway - the main line of communication from Srinagar / Kargil / Leh to Karakoram Pass and then sever the main logistic link between Kashmir valley and Ladakh.
3. By capturing Siachen and Indira Col Pakistan will be strategically in a better position and then secure common border with China in this region to facilitate closer military link up in the event of war with India.
4. Pakistan's apprehension is that, India is going to use Siachen area for continuing westward thrust to capture K2 area as well

as pose a threat to Karakoram highway (some 150 km away) which is of great strategic importance for Pakistan and China (connecting Sinkiang with Gilgit through Khanjreb pass). It is an all-weather road and provides a free passage for men and material between China and Pakistan.

5. Having occupied the Siachen, Indian troops with the help of one of the former soviet republics like Tjakistan or Kyrgyzstan could sabotage the strategic Karakoram highway which provides the direct link between Pakistan and China. Pakistan fears that with pressure and presence of one or more of the former Soviet Republics in the strategic Wakhan corridor and India's pressure from the east (Siachen side) can result in a pincer movement around its northern part.
6. Pak's occupation of Siachen provides cushion to the Chinese as it had happened in the case of Shaksgam area which was ceded by Pakistan in 1963 under Sino-Pak agreement.
7. One of the objectives could be to keep the front alive by creating more tension in the region, so that Pakistan continues getting more economic and military aid from America and other friendly countries.

#### **Chinese Geo-strategic Interests :**

1. To shorten the distance from Aksaichin plateau to Sinkiang border via Siachen.
2. Free Chinese access to Pakistan via Siachen and Pak occupied area.
3. To provide China a secure back door entrance to the Arab World through Pakistan.
4. To gain a commanding position on the roof of the Indian sub-continent.

5. To contain the Russian influence in Xin-jiang Province.
  6. To safeguard the strategic Karakoram highway which is popularly known as 'Chinese Window,' providing Peking with an opening to South Asia, so that they can receive shipment from the Arabian Sea for their Xin-jiang garrisons, and for Pakistan it provides with a very convenient means of shifting military equipment and weapons from China to Pakistan.
- ii) To dominate the high ground and passes in order to monitor the activities of the enemy.
  - iii) To ensure un-interrupted line of communication between :
    - a) Srinagar - Kargil and Leh
    - b) Leh - Karakoram Pass & D. B. O.
  - iv) With a complete control over the Siachen glacier zone, Indian security forces can keep large Pak and Chinese forces at bay.
  - v) To foil the plan of the construction of a new strategic highway parallel to the Siachen up to K2 and connecting it with the Karakoram Highway and Xinjiang province (according to the secret pact signed between China and Pakistan in 1987).

The people of Sinkiang have always felt nearer to the Muslim people of Central Asia than to those of China (Kashgir, Yarkand and Khotan). They are inhabited by the Uighur, Kyrgyz and Kazakh tribals, a large number of whom dwell on the other side of the frontier. The inhabitants of this region have close cultural, ethnic, linguistic and trade relations with the people of Central Asia, rather than with the rest of China.

The Chinese believe that the road connecting occupied Kashmir with Sinkiang through Khanjerb pass and from Aksaichin through Siachen will exert a favourable psychological influence on the sentiments of the people of Sinkiang.

### **India's Viewpoint and Geo-Strategic Interests :**

Although Siachen area is a permafrost and desolate region which is a economically useless and uninhabited part of Karakoram where no life can survive under normal conditions, it has great military and strategic significance for all the three countries, India, Pakistan and China. Therefore, India cannot afford to lose its control over this vital area at any cost.

The main objectives of India to have total control over Siachen zone are :

- i) To contain Sino-Pak coalition and joint military link-up.

### **CONCLUSION**

The strategic Tibet - Sinkiang road which passes through the Chinese occupied Kashmir (Aksaichin Plateau) which is east of Siachen and the Karakoram Highway that passes through Khanjerab Pass (in Pak occupied Kashmir) forms a noose round India's jugular (Srinagar-Leh communication line). If they capture Siachen they would be holding dagger at our back in the Nubra Valley. The defence experts are of the view that after acquiring Siachen, Pakistan will strike Indira-Col with the help of China and sever the logistic link between Leh and Karakoram pass area. Once these two highways are cut Ladakh will be isolated from the Kashmir Valley, which will prove very disastrous for India's security. Keeping this in view India cannot afford to lose this vital piece of land (the Nubra Valley and Siachen area).

The tussle for acquiring the territory and control over the passes has been going on for a long time but the battle for Siachen glacier has

started recently (during mid eighties since June, 1984). Things have changed with the induction of the latest technology. High altitude equipments and increasing sophistication have made it possible to sustain the troops at these heights. As a result, Siachen has assumed considerable value and has become a bone of contention between India and Pakistan; one desires to acquire it and the other desires to resist it.

The main threat to India's security within the foreseeable future are - A conventional military threat from Pakistan. A conventional military threat with ideological overtones from China and a combined military threat from China and Pakistan.

In view of this, India will have to prepare itself to station its troops in Siachen high altitude area for a never ending duration. This would be in India's interest to prepare mentally, physically and materially for high altitude-warfare.

The synchronization of two events, the Pak inspired trouble in Kashmir leading to a complete break-down of law and order and the large-scale military exercise, "Zerb-E-Momin", mounted all along Indo-Pak border in Jammu and Kashmir assumes a sinister significance which has to be properly assessed by the defence planners of India. The seriousness with which the two sides are engaged in a tug-of-war in Siachen leads us to the inescapable conclusion that some hard liners in the military establishment of Pakistan seem to think that the time is ripe for avenging the defeat in the 1971 war and also for grabbing Kashmir.

### **Lessons from Kargil**

The strategic importance of the environs of the inhospitable terrain and the hostile weather has been put to test in the Kargil war of 1999.

The Kargil war of 1999 resulted from a flagrant violation, by Pakistan, of the line of Control demarcated on the ground following the Simla Accord of 1972 between India and Pakistan. The Pakistan forces not only crossed the LOC and occupied a part of Indian territory without any provocation, but they had also occupied the high peaks of the region, looking above the Srinagar-Leh highway enroute Kargil, in order to have the advantage and tactical superiority over the Indian forces/ The aim of Pakistani forces was to snap the supply and communication lines of Indian Forces and also to isolate the Leh region from the J&K. It need to be mentioned here that the war of Kargil should not be seen in isolation but as a part of grand strategic design of Pakistan to deny India, an access to land route to Siachen where Indian Armed forces are deployed.

In spite of the advantages of tactical superiority in favour of Pakistan, the Indian forces had fought this high altitude war with professional acumen and pushed the Pakistanis beyond the LOC. However the Kargil War was an eye opener to India. The forward posts and pickets which used to be vacated with the onset of winter with a view that the enemy would dare not occupy them in the thick of winter months due to highly inhospitable weather and create any adverse situation for India. However this presumption of India has been proved wrong by the enemy. After the Kargil War the practice of pulling back of Indian forces during the winter months from the high peak zones has been given up and a year round presence of forces in this region has been ensured. In the context of India's strategic interest in the Siachen, the Kargil war has been a lesson to India to realise that the defence and security of the Kargil region is paramount to defend its strategic interest in Siachen. The Kargil War has taught a lesson

to India that to defend its strategic interest in the Siachen, the security and defence of Kargil region is paramount and has once again

confirmed the importance of Siachen and its environs despite the inhospitable terrain and hostile weather.

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