भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

F/No. AAI/JVC/Port Blair -Tariff/2025-26/1732 Date: -18.08.2025

The Secretary,
Airport Economic Regulatory Authority of India
AERA Building, Administrative Complex,
Safdarjung Airport
New Delhi-110003

Subject: -Submission of AAI's response to consultation paper No. 02/2025-26 in the matter of determination of aeronautical tariff for 1st control period (01.04.2025 to 31.03.2030) of Veer Savarkar International Airport, Sri Vijaya Puram.

Sir,

This has reference to AERA's consultation no 02/2025-26 in respect of Veer Savarkar International Airport, Sri Vijaya Puram issued by Airport Economic Regulatory Authority of India (AERA).

AAI's response to consultation paper No. 02/2025-26 is enclosed herewith for kind perusal please.

This issues with the approval of the Competent Authority.

Thanking You.

प्राधिकरण वित्तीय विनियामक प्राधिकरण
सफदरजंग एयरपोर्ट, नई दिल्ली-110003
प्राप्त
डाकघर सं. 20069
दिनांक 18/8/2025

Yours sincerely,

(Rajesh Khanna)
General Manager (Finance-Tariff)

Encl: -1. Response to Consultation Paper no 02/2025-26

VEER SAVARKAR INTERNATIONAL AIRPORT (PORT BLAIR) INTERNATIONAL AIRPORT

Response to Airports Economic Regulatory Authority (AERA)'s Consultation Paper No. 02/2025-26 dated 18th July 2025 Determination of Aeronautical Tariff for Veer Savarkar International Airport for the 1st Control Period (01.04.2025 - 31.03.2030).

Contents

1.Introduction

Airports Economic Regulatory Authority of India ('AERA') has released Consultation Paper No. 02/2025-26 on Aeronautical services in respect of Veer Savarkar e International Airport for the 1st Control Period (01.04.2025 to 31.03.2030), ('Consultation Paper' or 'CP') on 18th July 2025.

We hereby present our observations, suggestions, and request in respect of determination of Aeronautical Tariffs for Coimbatore for the Tariff Determination for the 1st Control Period – from 1st April 2025 to 31st March 2030 along with pre-control Period 1st April 2024 to 31st March 2025.

2. Pre Control Period (01.04.2024 to 31.03.2025)

i. Exclusion of pre-control period (01.08.2023 to 31.03.2025) [Para 4.1.4 of CP]

AERA's Contentions

AAI vide its letter No. AAI/CHQ/Major Airport/Tariff/2023-24/1216 dated March 28, 2024 had requested AERA to declare Veer Savarkar International Airport (Port Blair) as a Major Airport, as per Section 2(i) of the AERA Act, 2008 read with AERA (Amendment) Act, 2019, based on the designated capacity of the Veer Savarkar International Airport (Port Blair) Airport, which is 5 MPPA. Considering AAI's request, AERA vide Public Notice No. 02/2024-25 dated 2 May 2024, had considered Veer Savarkar International Airport (Port Blair) as a 'Major Airport'.

Subsequently, the AERA vide letter No. AERA/ Member (DKK)/ MA/ 16-2024 dated July 30, 2024 asked AAI to expedite the submission of the MYTP for determination of tariff for Aeronautical services for Veer Savarkar International Airport (Port Blair) Airport, considering that around three months had already elapsed from the date the Airport had been declared as a Major Airport by AERA (02.05.2024) and tariff determination process is getting delayed and may lead to shrinkage of Control Period for recovery of ARR.

In response to the above letter, AAI vide its letter no. AAI/ Tariff/2024-25/ Veer Savarkar International Airport (Port Blair)/ 1370 dated September 9, 2024 requested AERA to consider the First Control Period from the FY 2025-26 to FY 2029-30 and pre-Control period from July 1, 2023 (being the date of operationalization of the Terminal Building) to March 31, 2025, as the six months of FY 2024-25 had already elapsed and if the First Control Period commences from FY 2024-25, then AAI would be left with around 4.5 years for recovery of ARR. AAI further informed that they were still in the process of preparing the MYTP in respect of Veer Savarkar International Airport (Port Blair) Airport for submission to AERA.

Upon careful consideration of the above sequence of events, the Authority has the following view regarding consideration of the Pre-Control Period of Veer Savarkar International Airport (Port Blair) Airport:

i. The Authority notes that although PBIA attained the designated annual passenger throughput capacity of 5 MPPA in July 2023, AAI had approached AERA only in March 2024 (after a gap of

(after a gap of 9 months) for declaring PBIA as a Major Airport. Accordingly, Veer Savarkar International Airport (Port Blair) was considered as a Major Airport, vide Public Notice No. 02/2024-25 dated 2 May 2024.

ii. It is noteworthy that the Airport Operator (AAI) in its initial letter dated March 28, 2024 merely requested AERA to consider Veer Savarkar International Airport (Port Blair) as a 'major airport' and had not sought any revised Tariff/ tariff adjustment for the airport as per AERA's regulatory framework applicable to 'major airport', though the new Terminal Building (commissioned in July, 2023) had the requisite designated pax handling capacity in excess of 3.5 MPPA fulfilling the criterion for considering an airport as a 'major airport' based on its designated pax handling capacity. Meanwhile, the airport continued to levy the aeronautical tariff as applicable to non-major airports.

iii. Further, despite repeated reminders from AERA, AAI submitted MYTP for the First Control Period only on January 29, 2025, after a gap of around 9 months from the date of issuance of Public Notice (May 02, 2024) considering PBIA as a Major Airport.

iv. There was significant delay (around 9 months) in communicating about the commissioning of new Terminal Building (having 5 MPPA designated pax handling capacity) at Veer Savarkar International Airport (Port Blair) airport to AERA and further delay of around 9 months in submission of MYTP from the date the Veer Savarkar International Airport (Port Blair) airport considered as a major airport. Had AAI approached AERA in a timely manner regarding declaration of Veer Savarkar International Airport (Port Blair) as a major airport and expeditiously submitted MYTP and other related information for tariff determination as per the AERA Regulatory framework, it would have been possible to recover the revised charges from the passengers, who had travelled through Veer Savarkar International Airport (Port Blair) airport after commissioning of new Terminal Building. Now, it would be unfair to load the past under recovery for the period from July, 2023 to March 2024, on the current passengers traveling to Veer Savarkar International Airport (Port Blair).

Based on the above considerations, the Authority proposes to consider Pre-Control Period for the Veer Savarkar International Airport (Port Blair) airport from April 1, 2024 to March 31, 2025, as the Airport was considered as a Major Airport in FY 2024-25 (May 2, 2024) and the First Control Period from FY 2025-26 to FY 2029-30, which is in line with request of AAI vide its letter dated September 9, 2024.

Accordingly, the Authority has excluded the data pertaining to FY 2023-24 submitted by AAI, for the purpose of true-up of the Pre-Control Period.

The Authority advises AAI to ensure timely and complete submission of MYTP in future to prevent regulatory delays in finalization of aeronautical tariff and potential impacts on tariff outcomes.

AAI's Submission

AAI vide letter dated 29/01/2025 submitted MYTP of Veer Savarkar International airport (Port Blair) based on the audited annual accounts of FY 2023-24 and projection of FY 2024-25 was considered for preparation of MYTP of first control period from 01/04/025 to 31/03/2030. The

accounts were audited by CAG (Govt Audit) and the audit certificate was issued on 15/10/2024(Refer **Annexure-1**). After that MYT proposal was prepared which may normally takes 2 to 3 months as the information/data has to be collected from different Deptt at CHQ/RHQ and from Airport. Accordingly, MYT proposal was submitted with AERA on 29/01/2025.

In view of above it is requested to consider the Pre control period July'2023 to March'2025 instead of April 2024 to March 2025 as requested AAI vide letter no, AAI/Tariff/2024-25/Port Blair/1370 dt. 09.09.2024.

ii. Terminal Building Ratio

(Para 4.4.7 pf CP)

AERA Contention

The Authority also notes that the AO has apportioned the cost of common assets within the Terminal Building in the ratio of 95:5 (Aeronautical: Non-Aeronautical). However, the Authority has considered the Terminal Building ratio of 92:8 (Aeronautical: Non-Aeronautical) for apportionment of common assets within the Terminal Building (Aeronautical: Non-Aeronautical), in line with the optimum non-aeronautical area allocation of 8%-12% as per the IMG norms (for airports having passenger traffic of less than 10 MPPA) and same is being considered by AERA across all airports with similar capacity/traffic throughput.

AAI's Submission

AAI had constructed New Terminal building of 45679 SQM (inc. Canopy 4843 SQM) with 5MPPA to cater future growth. The present utilization of terminal building for Non Aero is 1.46% (665.35 sqm out of 45679 sqm). The present passenger throughput of Veer Savarkar International Airport (Port Blair) airport is 2MPPA(Projected) for the FY 2024-2025 as per CP&MS.

The New TB has been constructed to cater the passenger throughput over a period of next 10 years. Therefore, Non- Aero Revenue will also increase gradually over a period of time. Further Veer Savarkar International Airport (Port Blair) is a seasonal tourist destination and utilization of terminal building to the tune of 8% as non-aero in the First Control period seems to be very difficult. Therefore, Non-aero revenue will increase gradually over a period of time.

Since Veer Savarkar International Airport (Port Blair) airport is on an island located on the south-eastern coast of South Andaman Island in the Bay of Bengal. It may not be comparable with other airports as all the materials and other food items come from main land either by air or ship and it is also a seasonable tourist place therefore, AERA is requested to consider Terminal Building Ratio 95:5 as proposed by AAI.

iii. Apportionment of Administration & General expenditure of CHQ/RHQ

(Para 4.7.4 of CP)

AERA Contention

AAI had allocated Rs.7.28 Crores towards CHQ/RHQ (Administrative and General) expenses for Veer Savarkar International Airport (Port Blair) airport for FY 2024-25, based on the recommendations of the ICMAI report.

There after the meeting was held in the office of AERA. Wherein the representatives of ICMAI, MARF & AAI officials were also present.

Thereafter, the Authority, vide letter dated April 9, 2025 asked AAI to submit the CHQ/RHQ expenses allocation along with its workings for the FY 2022-23 & FY 2023-24. Further clarifications were sought from AAI on the aspects such as treatment of non-operational & RCS airports, CSR Expenses, etc. while allocating CHQ/RHQ cost allocation to airports, approach followed for allocation of expenses of common departments such as Finance, HR, Eng.

In response to the AERA's letter dated April 9, 2025, AAI had submitted a revised ICMAI study report on allocation of CHQ/ RHQ expenses to AERA on May 7, 2025, providing CHQ/ RHQ expenses allocations for FY 2022-23 and FY 2023-24, along with necessary clarifications/ details.

Upon review of the above revised study report, the Authority notes the following:

I. Application of **weighted average** method as a cost driver, owing to the uneven variations in the various factors that impact Airport operations. The following weightage have been assigned, as part of the study, for allocation of CHQ and RHQ expenses to the airports:

Table 15: Weightage assignment for CHQ/ RHQ expense allocation to Airports

Item/ Parameter	Weightage
Airport wise revenue	40%
Airport wise Employee cost	20%
Airport wise ATM	20%
Airport wise Passenger traffic	20%

As can be seen from the above table, revenue has been assigned maximum weightage (40%), while other factors such as Employee cost, PAX and ATM, that are also pertinent to airport operations have also been considered and assigned a comparatively lower weightage. This methodology enables fair allocation of CHQ and RHQ expenses to all airports (major, nonmajor, civil enclave etc.), relative to the size and scale of airport operations, as compared to the earlier methodology followed by AAI, wherein the allocation was made solely on the basis of revenue.

ii. As part of the Study, the following have been excluded, while allocating the CHQ/ RHQ expenses to the airports:

- Any interest paid on the delayed payments, fines & penalties incurred for violating the laws of the land or due to lapses/ delays, have been considered as abnormal in nature and have been excluded from the allocation to the airports.
- Legal costs, including arbitration costs, pertaining to cases filed by Airports have been excluded from the allocation to the Airports. Only expenses incurred on routine legal cases relating to employees, vendors and contractors have been apportioned between ANS and Airport in the ratio of 50:50.
- Bad debts and Provision for bad and doubtful debts have been excluded from the allocation to the Airports.
- Prior period adjustments comprising of prior period incomes and expenses have not been considered, while allocating expenses to the Airports.
- Corporate Social Responsibility (CSR) expenses have been excluded from the allocation, as the same is regarded as an element of appropriation of net profits and not as part of operating expenditure.
- Operating expenditure of RCS (Regional Connectivity Scheme) Airports have not been considered, while allocating CHQ/ RHQ expenses to the Airports, as RCS Airports are a separate entity being managed and controlled by the Ministry of Civil Aviation.

iii. Direct expenses relating to ANS and Airport operations have been identified and allocated to respective cost centres. However, common/ indirect expenses have been apportioned to ANS and Airport, based on relevant ratios such as ratio of Assets, employee headcount, revenue etc.

Based on the review of the Independent Study conducted by ICMAI MARF on the AAI's CHQ/RHQ cost allocations to airports, the Authority proposes to consider the recommendations of the revised study report of ICMAI submitted by AAI on May 7, 2025, for allocation of CHQ and RHQ expenses to AAI airports. Also, the Authority notes the following with respect to allocation of CHQ and RHQ expenses to Veer Savarkar International Airport (Port Blair) Airport:

Table 16: Allocation of CHQ/ RHQ-Admin and Gen expenses as per ICMAI report

Particulars	Allocation for FY 2024-25 (₹ in Crores)
CHQ and RHQ expenses submitted by AAI in its MYTP	7.28
CHQ and RHQ expense allocation as per ICMAI study report dated May 7, 2025	7.61

As shown in the above table, the CHQ and RHQ expense allocation submitted by AAI in the MYTP for FY 2024-25 is slightly lesser than that is proposed by the revised study report of ICMAI

dated May 7, 2025. Accordingly, the Authority proposes to consider the CHQ and RHQ expenses allocation for FY 2024-25 to Veer Savarkar International Airport (Port Blair) airport as claimed by AAI in its MYTP (₹ 7.28 Crores).

AAI's Submission

AAI had submitted MYT Proposal to AERA on 29th January 2025 based on the Audited financial of FY 2023-24 and proposed Rs.7.28 cr. as Common overheads of CHQ/ RHQ for the FY 2024-25 based for allocation of CHQ/RHQ expenses to Veer Savarkar International Airport (Port Blair) airport based on the FY 2021-22 (As per the study report of ICMAI) with 5% YOY growth. It is to mention that after submission of AAI proposal with AERA, a meeting was called by AERA on 18th February 2025 wherein, ICMAI MARF team along with AAI's official made a detailed presentation of the report for the F. Y. 2021-22 before Chairman/ Member AERA. Based on the discussions held with the AERA, ICMAI MARF made requisite modifications/changes in the report relating to allocation of CHQ & RHQ expenses for the financial year 2021-22 and also incorporated the same in its report for FY 2022-23 and 2023 -24.

On 7th May 2025 AAI had submitted study report as per ICMAI for FY 2022-23 & FY 2023-24 with the final CHQ/RHQ allocation which has been duly accepted by AERA as mentioned in the CP. Based on the final report submitted by ICMA, the allocation for Veer Savarkar International Airport (Port Blair) worked out to Rs.7.61 cr for the year FY 2024-25 (based on FY 23-24 plus 5 % YOY Growth) which may be considered by AERA. The impact of the above to the tune of Rs. 2.24 crores is as under:

Calculation of CHQ/RHQ for the 1st Control Period (Rs. In cr.)

CHQ/RHQ	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
AAI (Based on FY 2023-24)	7.61	7.99	8.39	8.81	9.25	9.71	51.76
AERA(Based on FY 2021-22)	7.28	7.64	8.03	8.43	8.85	9.29	49.52
Difference	-0.33	-0.35	-0.36	-0.38	-0.40	-0.42	-2.24

- **AERA is therefore requested to consider the facts stated above based on report submitted by ICMA for the FY 2022-23 and FY 2023-24 and consider the CHQ/RHQ expenses Rs. 7.61 crore for the FY 2024-25.**

iv. Carry forward of Under-recovery of Pre-control Period

(Para 4.10.2 of CP & Table No.22 of CP)

AERA's Contentions

Based on the review and rationalization of various building blocks, as discussed above in this chapter, the Authority has derived the ARR for true up of the Pre-Control Period (FY 2024-25) which is enumerated in the table below:

Table 22: ARR proposed by the Authority for True up of the Pre-Control Period

(₹ Crores.

Particulars	Ref.	FY 2024-25
Average RAB (refer Table 11)	a	757.79
FRoR (Table 12)	b	12.21%
Return on Average RAB	(c) = (a)*(b)	92.53
Depreciation (refer Table 10)	(d)	29.75
O&M expenses (refer Table 18)	(e)	36.28
Tax (refer Table 20)	(f)	-
Gross ARR	(g) = (c+ d+ e+ f)	**158.56**
NAR (refer Table 13)		8.42
Less 30% NAR	(h)	2.53
Net ARR	(i) = (g- h)	156.03
Actual Aeronautical Revenue (refer Table 21)	(j)	58.09
Under/ (Over) recovery of Pre-Control Period	(k) = (i- j)	**97.94**

4.10.3 The Authority has re-computed the under-recovery of ₹97.94 Crores for the Pre-Control Period as against ₹ 141.74 Crores claimed by AAI for FY 2024-25 and proposes to adjust the same in the ARR computation of the First Control Period.

AAI's Submission

Carry forward of under recovery for FY 2024-25 has not been compounded in the CP, the revised ARR *proposed by the AAI for True up of the Pre-Control Period is as under*

(₹ Crores.)

Particulars	Ref.	FY 2024-25
Average RAB (refer Table 11)	a	757.79
FRoR (Table 12)	b	12.21%
Return on Average RAB	(c) = (a)*(b)	92.53

Depreciation (refer Table 10)	(d)	29.75
O&M expenses (refer Table 18)	(e)	36.28
Tax (refer Table 20)	(f)	-
Gross ARR	(g) = (c+ d+ e+ f)	**158.56**
NAR (refer Table 13)		8.42
Less 30% NAR	(h)	2.53
Net ARR	(i) = (g- h)	156.03
Actual Aeronautical Revenue (refer Table 21)	(j)	58.09
Under/ (Over) recovery of Pre-Control Period	(k) = (i- j)	**97.94**
Compounded Factor		**1.14**
Return on Shortfall (Compounding14%) as on 01.04.25		**109.89**

AERA is requested to carry forward of Shortfall of Rs.97.94 cr. for the pre-control period(FY2024-25) after compounding amounting to Rs.109.89 cr to first Control Period.

3. New Capital Project Proposed by AAI for First Control Period

(Para B of 6.2.5of CP)

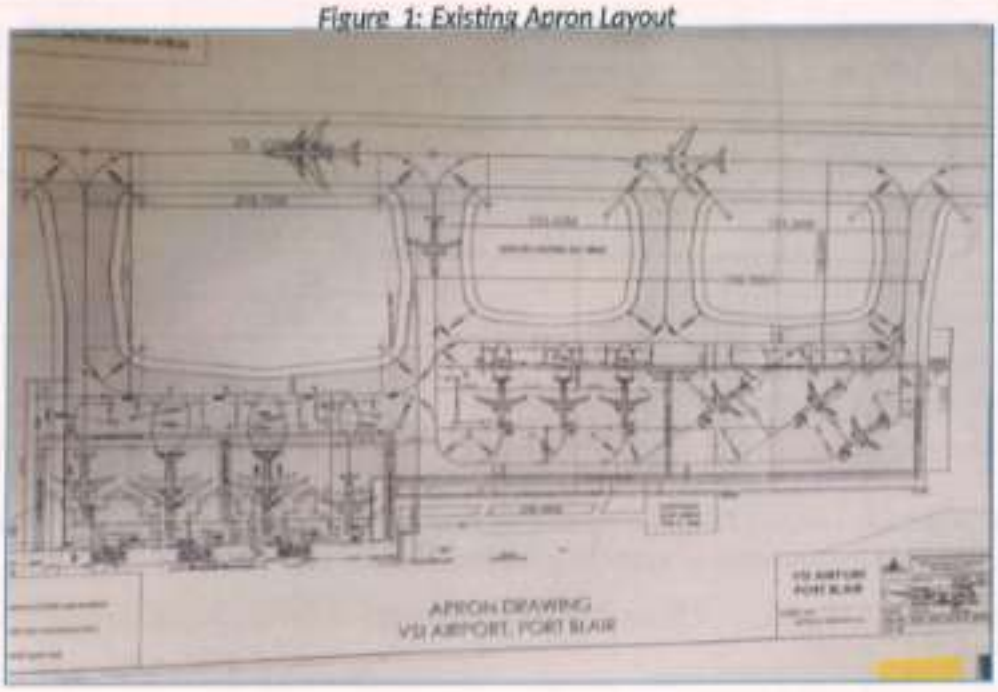
B1-Taxiway and Apron

Taxiway and Apron Reconstruction of existing Apron: The Authority notes that AAI has proposed CAPEX amounting to ₹ 120 Crores towards reconstruction of existing/ old Apron to be carried out during FY 2025-26 to FY 2027-28. Technical details of the existing Apron are as follows:

Particulars	Details
Size of Existing Apron	350 x 112 m
Year of construction	2010
Number of bays	8 bays (3- A321, 3- A320 and 2 with Coast Guard)

The airport has two aprons. The old/ existing Apron, located on the east side of the old terminal building, measures 350m x 112m and contains 8 bays, with 2 (nos.) bays allocated to the Coast Guard and 6 bays under AAI operations. AAI's 6 bays can accommodate 3 (nos.) A320 and 3 (nos.) A321 aircraft in Power-in Push-out mode. The new Apron, situated on the east side of the new terminal building, measures 220m x 120m with 4 bays capable of accommodating 2 (nos.) A321 and 2 (nos.) A320 aircraft in Push-back mode. The parking bay configuration and taxiway connectivity are illustrated in Figure 1.

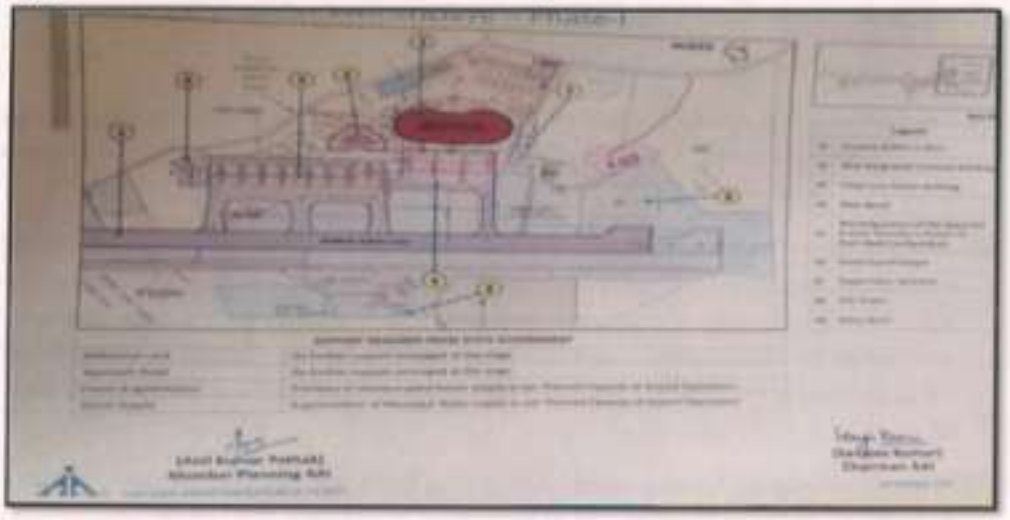
Figure 1: Existing Apron Layout



The Aviation Expert of the Independent Consultant, during the Airport's site visit has noted wide spread mild cracks on the PQC surface of the old Apron. AAI initially constructed an apron measuring 106m x 75m with one link taxiway during FY 2000-01, which was subsequently strengthened and expanded to 350m x 112m with two additional taxiways at both ends on January 2010. Surface cracks began developing in 2016, with stone aggregates loosening and separating from the cement concrete surface. Further, it was noted that CRRI's report dated February 2018 has recommended a permanent solution of 250mm M40 grade concrete overlay and a temporary measure of 10mm epoxy resin-sand mortar which would last for 2 to 3 years. AAI had implemented the temporary solution, whereby the work was completed in April 2019, however the mortar coating subsequently started to disintegrate and peel off. The cracks in the existing apron noted as part of the Aviation Expert's site visit have been depicted in Figure 2 below.

Figure 2: Cracks in the existing Apron

AAI has proposed to dismantle and reconstruct the existing 6 Power-in Power-out bays into 8 Power in Push-back configuration bays at an estimated cost of ₹120 crores. The reconstruction involves complete dismantling and replacement of the existing concrete pavement, base and subbase layers. Additionally, the clay subgrade would be excavated to approximately 5 feet depth and replaced with good quality soil or sand. The proposed apron layout is presented in Figure 3.



The Authority notes the following challenges as part of the implementation of this project .

- No land is available at the airport to dump the dismantled materials and the clay. AAI is dependent on the district administration to get the dumping yard.
- Prevalence of rainy season for 6 months, thereby limiting excavation of clay.
- All material, including sand and good earth are to be transported from mainland by ship.

Considering the above challenges and the fact that currently there is demand for 6 Apron bays during peak hours it is necessary to implement the project of reconstruction of the old Apron in phased manner (3-4 phases). AAI has not provided the methodology or any detailed estimate/ schedule for implementing this project. Based on the above factors, the Authority is of the view that only two phases of this project may be completed by AAI in this Control Period. Considering the essentiality of the project and reasonableness of estimated costs based on the cost of recently constructed new Apron, the Authority proposes to consider ₹60 crore for capitalisation in FY 2027-28 (₹30 crore) and FY 202930 (₹30 crore). Further, the Authority notes that CRRI have recommended a concrete overlay of 250mm, which may be completed in two years, with an estimated cost of ₹60 crore, as no subgrade settlement issues have been observed. AAI may explore the possibility of this alternative approach to resolve the issues currently observed with the existing Apron.

AAI's Submission

The reply in respect of Civil & Electrical Capital Expenditure (Civil & Electrical) :

(A) The surface of concrete pavement in the entire area of existing Apron was badly abraded and disintegrated generating lot of FOD's. The reason for FOD generation is poor strength of existing concrete as brought out by CRRI in their report during their visit to VSI Airport, Port Blair for providing "Mitigation measures for FOD on Rigid pavements at VSI Airport" **(Refer Annexure-2.)**

(B) In their conclusions and recommendations, the CRRI had suggested a temporary measure for 2 to 3 years or till the time a bonded/ unbonded overlay of epoxy resin-sand mortar can be applied in average thickness of 10mm over the entire area of existing Apron.

(C) The CRRI also suggested a bonded/ unbonded overlay of M40 grade concrete may be overlaid for completing arresting the generation of FOD from the pavement surface as a permanent solution.

(D) AAI took up the temporary solution of epoxy resin - sand mortar and completed the work on 05.04.2019. At present the epoxy resin mortar started coming out from the existing Apron at many places and cracks of concrete is reflecting over the epoxy surface, thus making it more susceptible for disintegration. Hence, it was decided by the Competent authority for the reconstruction of the existing Apron after demolition as a permanent solution. **(Refer Annexure-3)**

(E) The original proposal for reconstruction of existing Apron was made by the previous Engineering team based on the completion cost of New Apron for 04 bays. The completion cost was Rs.80 Crs (approx.) and proposal was considered only for 06 bays i.e bay no 03 to 08 and proportionate amount was worked out to Rs. 120 Crs and the same was projected.

(F) In the present proposal, in addition to 06 bays i.e from Bay no 03 to 08, reconstruction of three taxiways (W1, W2, W3 Taxi), Reconstruction of coast guard bays i.e bay no 01 & 02, GSE Area and additional RCC Drain are also considered.

(G) Demolition work of existing PQC, removal of existing WBM/ WMM, additional excavation below the base courses were not considered in the original proposal.

(H) The line estimate was prepared amounting to Rs. 234 Crs incl GST (modified) by the present Engg team based on the completed work of "C/o New Apron with link taxiway at VSI Airport, Port Blair" on pro-rata basis including 2% provision for Electrical works. Cost Index of 56.19% on DSR rates, GST @18%, ESI 3.25% and PF @13%, Operational area charges @4% and contingency @3%. **(Refer Annexure-4)**

(I) The temporary measure of epoxy resin with sand mortar for a thickness of 10 mm was laid over the entire area of existing Apron which was completed in April 2019.

(J) Presently, the entire overlaid epoxy surface had already started to disintegrate and cracks of concrete is reflecting over the epoxy surface, thus making it more susceptible for disintegration.

(K) Thus taking up the reconstruction of the total area of the existing Apron within this first control period is very much essential to prevent any untoward incident due to continuous disintegration of existing Apron pavement causing FOD generation.

(L) Hence, it is recommended to take up the reconstruction of existing Apron as a single work in the first control period. The work shall be taken up in two phases during execution as per the

attachments (Refer attachment 4, 5,6.). Phase-1 in FY 27-28 & Phase-2 in FY 28-29. Photos and Phasing are enclosed here with

(M) It will be ensured that at any point of time during execution, minimum 06 nos. of parking bays will be made available for the operations.

Hence, in view of the above, AERA is requested to consider the revised cost of Rs. 234 cr. (Phase-I Rs.112cr & Phase-II Rs.122 cr.) for construction of apron & Taxi ways.

B3-Building others – Miscellaneous work for International operation

i **Miscellaneous work for international operations:** AAI has proposed the miscellaneous works for international operations amounting to 8 Crores for capitalization during FY 2025-26 to FY 2029-30. The Authority notes that AAI has not finalised the detailed estimates for works included under this head and has only created a provision for probable works in the future. Therefore, the Authority proposes to consider the expenses on actual incurrence basis, at the time of true up of the First Control Period, subject to efficiency and reasonableness, while determining tariff for the Second Control Period for Veer Savarkar International Airport (Port Blair) Airport.

AAI's submission

It has been experienced in past that airport operator is required to spend on unforeseen capital expenditure due to operational requirement, Therefore, AAI is not able to quantify expenditure at this juncture. These capital expenditures are required for passengers' facilitation and hence, it is requested to consider the same on the lines of approval been given recent tariff orders issued by AERA.

B4-(iv) Threat Containment Vessel (TCV) :

Threat Containment Vessel (TCV): AAI has proposed CAPEX of 10 Crores towards procurement of Threat Containment Vessel in FY 2025-26. Considering the fact that AAI is yet to finalise its proposal to procure Threat Containment Vessel at the Veer Savarkar International Airport (Port Blair) Airport, the Authority proposes to consider the above CAPEX on actual incurrence basis, at the time of true up of the First Control Period, subject to reasonableness of estimated costs, while determining tariff for the Second Control Period for Veer Savarkar International Airport (Port Blair) Airport.

AAI's submission

AAI has already invited global tender (ID2025_AAI_239392_1) for procurement of Threat Containment Vessel (TCV) and is likely to be procured in FY 2025-26. Hence AERA is requested to consider capex of Rs.10 cr. in FY 2025-26. (Annexure - 5)

i. Admin & General Exp-CHQ/RHQ allocation (FCP)

(Para 9.2.11 of CP)

The Authority reviewed the basis for allocation of CHQ and RHQ expenses to Veer Savarkar International Airport (Port Blair) Airport for the First Control Period. As per the reasoning provided in para 4.7.4, the Authority proposes to consider the amount allocated by AAI towards CHQ/RHQ expenses for FY 2024-25 for Veer Savarkar International Airport (Port Blair) Airport (as submitted by AAI in its MYTP) as the base and consider a 5% Y-o-Y increase for deriving the allocable CHQ/RHQ expenses for the First Control Period for PBIA. The same is presented in Table 40.

Table 40: Operation and Maintenance (O&M) expenses proposed to be considered by the Authority for the First Control Period

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
Payroll Costs	8.56	9.08	9.62	10.20	10.81	**48.27**
Retirement benefits of Employees at Veer Savarkar International Airport (Port Blair) Airport	0.42	0.45	0.47	0.50	0.53	**2.37**
Repair & Maintenance Expenses	6.54	7.17	7.86	8.62	9.48	**39.68**
Power Expenses	8.23	8.47	8.73	8.99	9.26	**43.68**
Utilities & Outsourcing Expenses	2.31	2.52	2.75	3.01	3.29	**13.89**
Upkeep Expenses	3.65	3.78	3.91	4.05	4.19	**19.58**
Admin. & Other General Expenses - Excluding CHQ/RHQ and Upkeep expenses	2.08	2.28	2.51	2.76	3.04	**12.68**
Admin. & Other General Expenses - CHQ/RHQ	7.65	8.03	8.43	8.85	9.30	**42.26**
Other Outflows	0.29	0.34	0.38	0.44	0.50	**1.95**
Total O&M Expenditure	**39.73**	**42.12**	**44.68**	**47.42**	**50.40**	**224.36**

AAI's Submission

AAI had submitted MYT Proposal to AERA on 29th January 2025 based on the Audited financial of FY 2023-24 and proposed Rs.7.28 cr. as Common overheads of CHQ/ RHQ for the FY 2024-25 based for allocation of CHQ/RHQ expenses to Veer Savarkar International Airport (Port Blair) airport based on the FY 2021-22 (As per the study report of ICMAI) with 5% YOY growth. It is to mention that after submission of AAI proposal with AERA, a meeting was called by AERA on 18th

February 2025 wherein, ICMAI MARF team along with AAI's official made a detailed presentation of the report for the F. Y. 2021-22 before Chairman/ Member AERA. Based on the discussions held with the AERA, ICMAI MARF made requisite modifications/changes in the report relating to allocation of CHQ & RHQ expenses for the financial year 2021-22 and also incorporated the same in its report for FY 2022-23 and 2023 -24.

On 7th May 2025 AAI had submitted study report as per ICMAI for FY 2022-23 & FY 2023-24 with the final CHQ/RHQ allocation which has been duly accepted by AERA as mentioned in the CP. Based on the final report submitted by ICMA, the allocation for Veer Savarkar International Airport (Port Blair) airport worked out to Rs.7.61 cr for the year FY 2024-25 (based on FY 23-24 plus 5 % YOY Growth) which may be considered by AERA. The calculation of Rs. 2.24 crores is as under:

Calculation of CHQ/RHQ for the 1st Control Period (Rs. in cr.)

CHQ/RHQ	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
AAI (Based on FY 2023-24)	7.61	7.99	8.39	8.81	9.25	9.71	51.76
AERA(Based on FY 2021-22)	7.28	7.64	8.03	8.43	8.85	9.29	49.52
Difference	-0.33	-0.35	-0.36	-0.38	-0.40	-0.42	-2.24

AERA is requested to consider the same to avoid the impact of Rs.2.24 cr. (Cumulative effect -1st CP).

ii.Revenue from passenger related services
(Para 10.2.4 of CP)

AERA's Contentions

The Authority is of the view that Veer Savarkar International Airport (Port Blair), being a prominent tourist destination, is likely to witness a steady growth in passenger traffic during the First Control Period. With the increased capacity of the New Terminal Building, the airport will be better equipped to handle higher footfall. Further, possibility may be explored if the existing old Terminal Building can be repurposed to generate Non-Aeronautical revenue by utilizing the space for various commercial activities beyond traditional retail and food and beverage outlets. These may include premium offerings such as lounges, VIP services, transit accommodation and tourism-related services. The Authority takes cognizance of this opportunity to enhance Non-Aeronautical revenue streams and acknowledges that Veer Savarkar International Airport (Port Blair) International Airport is expected to handle increased passenger traffic. In view of the above, the Authority proposes to consider the Non-Aeronautical Revenue for FY 2025-26 as submitted by AAI and consider increasing the NAR for FY 2026-27 to FY 2029-30 in line with the growth in domestic passenger traffic (Table 26), adjusted with Y-o-Y inflationary increase, as per the inflation rates stated in Chapter 8 of this Consultation Paper.

10.2.7 The growth rates as per Authority's examination have been presented in the table below:

Table 45: Growth rates in Non-Aeronautical revenue proposed by the Authority

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
1. Passenger related revenue					
Restaurant / Snack Bars	7%	18%	17%	17%	17%
T.R. Stall	79%	18%	17%	17%	17%
Hoarding & Display	47%	18%	17%	17%	17%
Car Rentals	140%	18%	17%	17%	17%
Car Parking	58%	18%	17%	17%	17%
Admission Tickets	10%	18%	17%	17%	17%
Other Misc Income	5%	5%	5%	5%	5%
3. Other Revenue					
Land Leases	15%	0%	0%	0%	0%
Building (Residential)	5%	5%	5%	5%	5%
Building (Non-Residential)	7%	7%	7%	8%	8%

AAI's Submission

Non-Aeronautical Revenue

- AERA has taken Pax growth adjusted with 2.8% Y O Y inflationary increase for projecting non-aero revenue for the 1st Control period.
- Increase in Non-aeronautical revenue is not proportionate with increase in traffic and is governed by the contractual agreement with the concessionaire.
- The percentage of non-aeronautical business is dependent on multiple factors such as demand, customer behavior, spending patterns and per capita income of the region. Therefore, a standardized approach may not accurately reflect the ground reality of non-aeronautical business and may be detrimental to the Airport Operator.

In view of the above, AERA is requested to consider the growth rate without inflation effect as proposed by Veer Savarkar International Airport (Port Blair) airport.

(ii) Taxation for FCP
(Table No.47 of Para 11.2.1 of CP)

11.2.1 The Authority notes that PBIA has calculated income tax based on the projected Aeronautical revenues. The Authority has re-computed the taxes based on the revised revenues computed

by the Authority after rationalisation of regulatory blocks for the First Control Period, as discussed in the previous chapters. The following table summarizes the Aeronautical taxes proposed by the Authority for the First Control Period.

Table 47: Taxation proposed to be considered by the Authority for the First Control Period

(₹ Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
Aeronautical Revenue (refer Table 54)	81.41	95.64	116.52	141.36	169.23	**604.17**
O&M expenses (refer Table 40)	39.73	42.12	44.68	47.42	50.40	**224.36**
Depreciation	72.63	67.56	63.32	59.37	55.24	**318.12**
Profit Before Tax	**(30.95)**	**(14.04)**	**8.52**	**34.57**	**63.60**	**61.69**
Set-off of prior period tax losses	-	-	(8.52)	(34.57)	(63.60)	**(106.68)**
PBT after set-off of prior period tax losses	-	-	-	-	-	-
Tax rate (%)	25.17%	25.17%	25.17%	25.17%	25.17%	
Tax	-	-	-	-	-	**0.00**

Note: The variance between taxation proposed by the Authority for the First Control Period (NIL) and that claimed by AAI (₹ 24.31 Crores) is on account of the following:

I. Rationalization of aeronautical revenue amounting to ₹ 228.02 Crores.

II. Rationalization of O&M expenses amounting to ₹ 24.15 Crores.

III. Variance in depreciation amounting to ₹ 52.97 Crores due to rationalization of CAPEX.

AAI's Submission

Taxation

AERA has considered the carry forward of loss of Rs.41.73 cr. pertains to FY 2023-24 whereas FY 2023-24 has not been considered by AERA as pre control period resulting in decrease in ARR. The revised calculation of tax for the 1st control period is as under:-

Particulars	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
Aeronautical Revenue (refer Table 54)	58.09	81.41	95.64	116.52	141.36	169.23	**662.25**
O&M expenses (refer Table 40)	36.28	39.73	42.12	44.68	47.42	50.4	**260.63**
Depreciation	79.34	72.63	67.56	63.32	59.37	55.24	**397.46**
Profit Before Tax	**-57.53**	**-30.95**	**-14.04**	**8.52**	**34.57**	**63.59**	**4.16**
Set-off of prior period tax losses		-	-	-8.52	-34.57	-59.43	
PBT after set-off of prior period tax losses		-	-	-	-	4.16	**4.16**

Tax rate (%)		25.17 %	25.17 %	25.17 %	25.17 %	25.17%	
Tax		-	-	-	-	1.05	1.05

In view of above, AERA is requested to consider the tax calculation for 1st control period to calculate the ARR.

Annexure I

GAP/AAI/Accounts Audit/AAI/6-192/2024-25/522

कार्यालय महानिदेशक लेखापरीक्षा
(अवसंरचना), नई दिल्ली
तृतीय तल, ए-विंग, इन्द्रप्रस्थ भवन,
इन्द्रप्रस्थ एस्टेट, नई दिल्ली-110002

OFFICE OF THE DIRECTOR GENERAL OF
AUDIT (INFRASTRUCTURE), NEW DELHI
3rd Floor, A-Wing, Indraprastha Bhawan,
I.P. Estate, New Delhi-110002

दिनांक (DATE) 15/10/2024

सेवा में,

सचिव, भारत सरकार
नागर विमानन मंत्रालय,
राजीव गांधी भवन,
नई दिल्ली-110003.

विषय:- वर्ष 2023-24 के लिए भारतीय विमानपत्तन प्राधिकरण (AAI) के लेखों पर लेखापरीक्षा प्रतिवेदन।

महोदय,

मैं इस पत्र के साथ भारतीय विमानन प्राधिकरण अधिनियम 1994 की धारा 28(2) के अधीन भारतीय विमानपत्तन प्राधिकरण के वर्ष 2023-24 के वार्षिक सत्यापित लेखाओं की प्रति तथा उस पर लेखापरीक्षा प्रतिवेदन अग्रेषित कर रही हूँ।

कृपया इन लेखाओं और प्रतिवेदन को संसद में पेश करने की तारीख इस कार्यालय को सूचित करें। प्रतिवेदन को संसद में पेश करने के पश्चात पेश किए गए प्रत्येक दस्तावेजों की 25 प्रतियाँ इस कार्यालय में तथा एक प्रति भारत के नियंत्रक एवं महालेखापरीक्षक के कार्यालय को भिजवाएं।

भवदीया,

संलग्न:- यथोपरि

(विनीता सिन्हा)
महानिदेशक

संख्या:-GAP/AAI/Accounts Audit/AAI/6-192/2024-25/522 दिनांक- 15/10/2024

प्रतिलिपि:-

मंत्रालय को जारी किए गए पत्र के साथ भारतीय विमानपत्तन प्राधिकरण, के वर्ष 2023-24 के लेखाओं पर लेखापरीक्षा प्रतिवेदन की प्रति अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण को प्रेषित है। कृपया प्रतिवेदन को भारतीय विमानपत्तन प्राधिकरण अधिनियम 1994 की धारा 28(2) के अनुसार संसद में पेश होने तक गोपनीय रखा जाए।

(विनीता सिन्हा)
महानिदेशक

Annexure-2

सी.एस.आई.आर.-केंद्रीय सड़क अनुसंधान संस्थान

(वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद)

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CSIR-CENTRAL ROAD RESEARCH INSTITUTE

(COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH)

Delhi-Mathura Road, P.O. CRRI, New Delhi-110 025 (INDIA)

No.CRRI/ RPD/AAI/Port Blair/02 Dated: 12.02.18

To
Sh. Chanchal Chakrabarti
Asst. General Manager (Engg. – Civil)
Airport Authority of India
VSI Airport, Port Blair

Sub: Mitigation Measures for FOD on Rigid Pavement at VSI Airport at Port Blair.

Ref: Your letter No. AAI/CHQ/Engg.(C)/Port Blair/Apron/2017/13, dated 23.11.2017

Sir,
With reference to the above, please find enclosed herewith a copy of the report on "Mitigation measures for Foreign Object Debris (FOD) on Rigid Pavement at VSI Airport, Port Blair". In case, there is any clarification, please, feel free to contact the undersigned.

Thanking you.
Yours sincerely,

(Binod Kumar)
Head, Rigid Pavements Division
(m) - 9868625035

(334)

MITIGATION MEASURES FOR FOREIGN OBJECT DEBRIS (FOD) ON RIGID PAVEMENT AT VSI AIRPORT PORT BLAIR

Sponsored by

Airport Authority of India
VSI Airport, Port Blair

RIGID PAVEMENT DIVISION

January, 2018

सी एस आई आर - केंद्रीय सड़क अनुसंधान संस्थान, नई दिल्ली-110025
CSIR - CENTRAL ROAD RESEARCH INSTITUTE
NEW DELHI-110025

MITIGATION MEASURES FOR FOREIGN OBJECT DEBRIS (FOD) ON RIGID PAVEMENT AT VSI AIRPORT PORT BLAIR

Director	Dr. Satish Chandra

Project Team

Sh. Binod Kumar	Head & Pr. Scientist
Sh. Ravi Shankar S	Scientist
Sh. Manoj Kumar	STA
Miss Ashia	Tech I

DISCLAIMER

All the data and technical information furnished in this report is site specific and based on investigation carried out in field and laboratory. The responsibility of Central Road Research Institute (CRRI) is limited to the technical and scientific matters contained in the report. Any use of the findings of the report without consulting CRRI by any other agency or person other than the client is solely at their own risk and responsibility.

ACKNOWLEDGEMENT

This project was referred to the Central Road Research Institute, New Delhi by the Airport Authority of India (AAI), VSI Airport, Port Blair. The sponsorship of this project to the Institute and the confidence vested in the Institute's expertise is sincerely appreciated. The Institute would like to place on record its deep appreciation for the cooperation, help and facilities extended to CRRI team by the officials of AAI, Port Blair, during field investigation.

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1. INTRODUCTION

Rigid pavement in the apron area of the VSI airport at Port Blair was constructed in the year 2010. The approximate area of rigid apron is 45000 m². The disintegration of rigid apron surface has been observed for the last 3-4 years. The disintegrated aggregates from the concrete surface of the apron are creating the problem of Foreign Object Debris (FOD) which can be disastrous in the event the FODs are sucked in by the engine of the aircraft. Airport Authority of India (AAI), through its letter No. AAI/CHQ/Engg.(C)/Port Blair/Apron/2017/13, dated 23rd November, 2017, sought the advice of CSIR-Central Road Research Institute, New Delhi to ascertain the reasons for aggregate disintegration from the surface of rigid apron and also to suggest the remedial measures so that the disintegration of aggregates can be fully arrested for safe aircraft operations.

2. FOREIGN OBJECT DEBRIS/DAMAGE (FOD)

FOD is known as foreign object that can cause severity and destruction to the aircraft such as engine failure and loss of human life. Foreign Object Debris can be defined as anything that is around or inside the aircraft and flight line operations that does not belong there. Foreign Object Damage is the damage on aircraft, helicopters, launch vehicles, engines or other aviation equipments, which takes place when a foreign object smashes the engine, flight controls, airframe and the other operating systems. According to Federal Aviation Authority, USA, FOD is principally known as a hazard element that can severely harm the airport, personnel and equipment. In fact, the most serious accident due to FOD involving the injuries or death to the personnel has usually occurred when the personnel was exposed to adverse effects of high velocity jet blast. The harsh blast forced FOD often caused injuries to personnel who were around the area.

2.1 FOD Types

FOD can basically be divided into two types – soft and hard bodies. The impact of soft body damage can result from flexible objects such as birds, ice and plastic. It can usually be seen by a large radius curvature of deformation to the turbine blade fan. Hard body (metal parts, concrete and rock etc) impact damage occurs with uneven appearances, for example, tear to airfoil's leading and trailing edges at the turbine blade section.

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2.2 FOD Sources

There are many types of FOD that vary in materials, colours and sizes. In general, there are four basic classes of FOD – metal, stone, miscellaneous objects, and birds. The various sources of FOD are given below.

Type of FOD	Sources
Airport Infrastructures	Sign, pavements and lights
Aircraft Parts	Fuel cap, oil stick, trapdoors and tyre
Environment	Wildlife, snow and ice
Airfield Equipments	Vehicles, maintenance equipments, fuelling & construction equipments
Aircraft and engine fasteners	Nuts, bolts and washers
Flight line items	Nails, badges, luggage tags, soda can etc.
Runway & taxiway materials	Concrete and asphalt chunks, joint sealant materials and paint chips

3. OBJECTIVES OF THE PROJECT

The project deals with the problem of FOD generation from the concrete pavement surface in Apron area of VSI airport at Port Blair. The objectives are:

(i) To ascertain the reasons for chipping of aggregate or aggregate disintegration from the surface of concrete slabs in Apron area leading to FOD generation.

(ii) To advise on remedial measures so that the disintegration of aggregates from the concrete surface and FOD generation can be fully arrested.

4. FIELD OBSERVATIONS

Entire area of concrete apron was inspected and following observations were made:

(i) The top surface of all the concrete slabs laid in the apron area was badly abraded (Photo 1). The top textured layer of cement-sand mortar has got completely removed leading to exposure of coarse aggregates. Exposed aggregates are gradually disintegrating and coming off the surface generating FOD. The abrasion of the surface and disintegration of coarse and fine aggregate was observed in the area where the movement of aircrafts and other vehicles takes place very frequently as well as in the rarely trafficked area of the concrete apron.

(ii) The edges, sealing groove and sealing material have also been damaged due to progressive disintegration of the concrete surface especially near and along the joints (Photo 2). The sealant into the joints has become loose due to the cracking of joint edges. At many places, sealant was observed to have been removed completely.

(iii) Though the FODs generated due to the disintegration and dislodging of fine and coarse aggregates from the surface are being removed daily by brooming and cleaning the apron area, but, still pieces of fine and coarse aggregates get trapped into damaged joints. Such trapped aggregates were observed during the inspection (Photo 3).

(iv) Structural cracks were not observed anywhere on the entire area of apron. It shows that the concrete slabs of the apron have so far been capable of carrying the load of aircrafts and other operational vehicles.

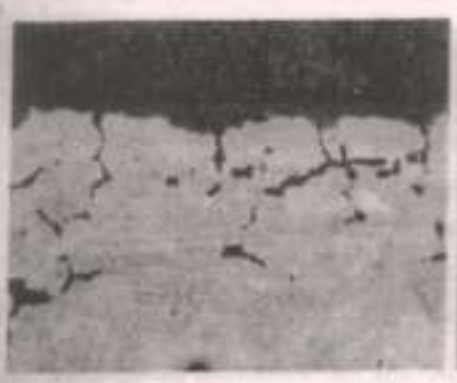
(v) 5-6 patches were observed where top abraded and disintegrated surface have been treated with commercially available cementitious and epoxy materials in 2016. Some of these repaired patches were observed to have developed fine shrinkage cracks (Photo 4). One repaired patch lying in the area of aircraft movement was observed to have been abraded slightly again and aggregates exposed (Photo 5). Delamination of applied material at some of the patches was also noticed (Photo 6). Delaminated material also becomes a source of FOD.

(A) (B)

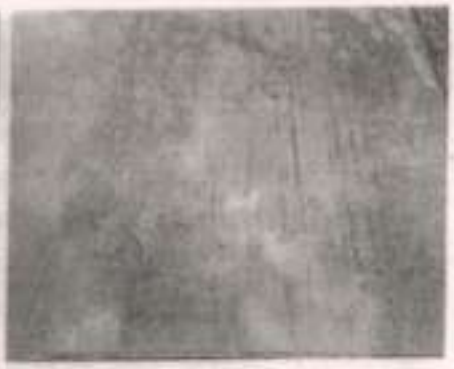
Photo 1. Badly Abraded Surface of Concrete in Apron Area

Photo 2. Damaged Edges and Sealant of Joints

Photo 3. FOD Trapped Inside Joints



(A)



(B)

Photo 4. Fine Shrinkage Cracks in Repaired Patches

Photo 5. Abrasion on Repaired Patch

Photo 6. Delamination of Patched Material

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5. REQUIREMENT OF PAVEMENT QUALITY CONCRETE FOR HIGHWAYS AND AIRPORTS

Cement concrete when used for paving of highways, runways, apron, taxiways etc., must be capable of meeting structural as well as functional requirements. Concrete pavement wherever laid must be structurally strong to take on the load of vehicles on highways and load of aircrafts on runways, taxiways and apron on airports without undergoing fatigue failure due to repetitive loading during its design period. Concrete pavements are designed on the basis of two main parameters of flexural strength of concrete and frequency and amount of loading. A properly designed concrete pavement will not fail prematurely due to fatigue under repetitive application of load. Properly designed pavements may even not fail due to fatigue even after the design life is over. Fatigue failure of the concrete pavement may be appeared in the form of full depth transverse cracking, corner cracking and sometimes in longitudinal cracking.

As far as the structural design (mainly thickness) is concerned, any value of flexural strength may be adopted and corresponding thickness may be determined as per standard design procedures. Lower value of flexural strength will result in higher thickness of the pavement whereas higher value of flexural strength will result in lower thickness of the pavement. Thus, a structurally strong pavement can be designed and constructed for any flexural strength (or any Grade) of concrete.

The most important aspect of the paving concrete is to fulfill the functional requirement of the pavement. The surface of the concrete pavement must be strong enough to withstand the wear and tear due to vehicular movement. The property of the concrete which indicate its ability to bear such wear and tear at the surface is termed as its abrasion resistance. If the concrete do not have adequate abrasion resistance then its surface may get abraded or disintegrated under the traffic movement leading to a very rough surface which is unable to perform its functional duty of providing a smooth riding quality. The abrasion resistance of the concrete depends largely on its compressive strength or Grade of concrete. It has been observe that the abrasion resistance of concrete of less than M30 Grade is inadequate to bear the abrasion/wear and tear that occurs at its surface due to vehicular movement. If concrete is weak in strength then top textured layer of the pavement is worn out soon after the traffic allowed to run over it. Gradually the cement-sand mortar which holds or binds the coarse aggregate in place is also removed and eventually leading to the removal or disintegration of coarse aggregates from the concrete surface. Due to this requirement of strong abrasion resistance of concrete and good functional performance of the pavement, the minimum Grade of concrete recommended for highways is M40. Similar Grades of concrete are also used for runways, taxiways and aprons of airports.

Thus, from the preceding discussion, it can be concluded that if concrete of poor strength is used for paving application, the pavement may still be strong structurally but it will be very weak and inadequate functionally. The concrete used for any paving application must be strong both structurally and functionally.

6. REASONS FOR AGGREGATE DISINTEGRATION AND FOD GENERATION

As explained above a concrete of poor strength/quality will have poor abrasion resistance. The weak cement paste of such concrete fails in binding and holding the fine and coarse aggregates which are gradually dislodged and disintegrated form the concrete surface and generate FOD. After seeing the badly abraded and disintegrated surface of the concrete slabs at the airport, there is no doubt to conclude that the poor strength of in-situ concrete is the only reason of generating so much amount of FOD.

The Airports Authority of India, VSI, Airport, Port Blair has earlier got the in-situ strength of the concrete determined through core testing by the Jadavpur University, Kolkata in 2016. The results were made available to us and are reproduced in the Table 1.

Table 1. Compressive Strength of In-Situ Concrete

Sample No.	Equivalent Cube Compressive Strength, MPa
1	24.73
2	24.73
3	21.57
4	23.46
5	21.72
6	19.75
7	22.17
8	24.73
9	21.69
10	21.64
	Average = 22.57 MPa

The average compressive strength of in-situ concrete is 22.57 MPa which is very inadequate with regard to the abrasion resistance of concrete. The poor strength of concrete is the reason for the generation of FOD at the airport.

7. REMEDIAL MEASURES FOR FOD PREVENTION

The possible measures and their limitations for the prevention of FOD are as follows:

(i) *Bituminous Overlay*

Bituminous overlay of Bituminous Concrete (BC) or Mastic Asphalt are used for the rehabilitation and improvement of riding quality of concrete highway pavements which are structurally strong but abraded at the surface because of poor concrete quality. The life of such overlays has been observed to be 4 to 5 years after which another bituminous overlay becomes necessary due to the aging and delamination of existing bituminous layer from the underlying concrete. The joints of underlying concrete pavement also get reflected in the bituminous layers. Water during rains or due to poor drainage system enters through these reflective cracks, reaches under the bituminous layer and debonds it from concrete.

If these bituminous overlays are used for the treatment and stabilization of deteriorated surface of concrete airport pavement slabs, then, it has got many limitations like limited life of 4 to 5 years, damage due to aviation fuel, reflective cracking and debonding with concrete. The reflective cracking in bituminous layer over the joints and its delamination due to loss of bond with the underlying concrete pavement subsequently may become another source of FOD. Thus, bituminous overlay may only be a temporary solution and may not be a viable solution.

(ii) Treatment with Cementitious, Polymer Based and other Polymer modified Cementitious Materials

There are many commercially available cementitious, polymer based (epoxy, polyurethane, polyester etc), and polymer modified cementitious materials which can be applied over the deteriorated surface of concrete. These materials have different method of preparation, application and are applied in different thicknesses varying broadly between 5 mm to 20 mm. These materials also give temporary solution only as there life is also expected to be 2-3 years. These materials also get abraded, debonded and delaminated with the concrete gradually. During the process of delamination these materials may also be a source of FOD.

Epoxy resin – sand mortar, applied in an average thickness of 10 mm, is recommended for the temporary treatment of disintegrated surface of concrete slabs and prevention of FOD at the airport. In

epoxy resin mortars, generally one part by weight of resin formulation is mixed with 3 - 5 parts of medium to fine sand. The grading of the medium sand to be used is given in Table 2.

Before the application of resin-sand mortar, the existing sealant of the joints should be removed and during the application of mortar, the edges of the joints should also be repaired. After the application of epoxy sand mortar, joints should be cleaned properly and resealed with polysulphide sealant.

Table 2. Recommended Grading of Sand for Epoxy-Resin Mortar

Sieve Size	Medium Sand % Passing
4.76	100
2.36	100
1.18	100
600 micron	50 – 60
300 micron	20 - 30
150 micron	20 - 30

These materials used as a temporary measure should possess the following characteristics:

Characteristic	Suggested Value
1 Day Compressive Strength	≥ 30 MPa
1 Day Flexural Strength	≥ 2.5 MPa
2 Day Bond Strength with Concrete	≥ 2.5 MPa

(iii) Bonded/Unbonded Concrete Overlay

Since the generation of FOD from pavement surface is attributed to poor quality of concrete, therefore, an overlay of good quality concrete will provide a permanent solution to the FOD problem. Fresh concrete overlay should be provided with well designed concrete mix of M40 Grade concrete. The overlay may be designed as bonded or unbounded overlay. In an unbounded overlay, existing pavement is treated as a sub-base layer and a separation layer is provided between existing pavement and overlay to intentionally create an unbonding condition. In bonded overlay, the thickness and strength of existing concrete pavement is taken into consideration while designing the thickness of bonded overlay. The surface treatment of existing pavement to create a bonding condition with the overlay is an important part of bonded overlay construction. Since, the existing pavement is structurally

strong without any structural transverse or corner cracking, a properly designed bonded concrete overlay may be provided to achieve permanently a FOD free pavement. The very rough surface of the existing pavement will help develop a good bond with the overlay. The thickness of bonded overlay is suggested to be 250 mm, however, it should be designed properly.

8. CONCLUSIONS AND RECOMMENDATIONS

Following conclusions can be drawn about the condition of existing pavement, reason of FOD and remedial measures.

- The surface of concrete pavement in the entire area of apron is badly abraded and disintegrated generating lot of FODs. The reason of FOD generation is poor strength of existing concrete.
- No structural cracking was observed in the concrete slabs indicating that the existing concrete pavement is structurally in good condition.
- A bonded/unbonded overlay of M40 Grade concrete is recommended as a permanent solution for completely arresting the generation of FOD from the pavement surface. The thickness of the bonded overlay is suggested as 250 mm, however, it should be designed appropriately.
- As a temporary measure for 2-3 years or till the time a bonded/unbonded overlay is placed, epoxy resin – sand mortar can be applied in an average thickness of 10 mm over the entire area or the area where the movement of aircraft takes place. Manufacturer's recommendation for mixing, patching, and curing should also be taken into consideration during its field application. Edges of the joints should also be repaired and joints should be resealed with polysulphide sealant.

Annexure-3

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

योजना/501/SOW/Port Blair/2023/525

19.04.2023

क्षेत्रीय कार्यपालक निदेशक (पूर्वी क्षेत्र),
भारतीय विमानपत्तन प्राधिकरण
कोलकता विमानपत्तन,
कोलकता

महाप्रबन्धक (अभियांत्रिकी-सिविल) (पूर्वी क्षेत्र),
भारतीय विमानपत्तन प्राधिकरण,
कोलकता विमानपत्तन,
कोलकता,

विमानपत्तन निदेशक,
पोर्ट ब्लेयर विमानपत्त,
पोर्ट ब्लेयर

विषय: वीएसआई एयरपोर्ट, पोर्ट ब्लेयर में मौजूदा एप्रन और तीन nos टैक्सीवे के पुनर्निर्माण से संबंधित (SOW)

वीएसआई एयरपोर्ट, पोर्ट ब्लेयर में मौजूदा एप्रन और तीन nos टैक्सीवे के पुनर्निर्माण से संबंधित SOW की अनुमोदित प्रति आवश्यक कार्यवाही हेतु संलग्न है।

19/4/2023
(मार्क इक्का)
संयुक्त महाप्रबन्धक (वास्तु)

संलग्न :- SOW की अनुमोदित प्रति

आंतरिक प्रतिलिपि

1. का. निदेशक (योजना)
2. का. निदेशक (प्रचालन)
3. का. निदेशक (अभि.) पूर्वी क्षेत्र
4. महाप्रबन्धक (वास्तु)
5. महाप्रबन्धक (योजना)
6. सदस्य (योजना) के व्यक्तिगत सहायक

AIRPORTS AUTHORITY OF INDIA
(DIRECTORATE OF PLANNING)

SCOPE OF WORK FOR RECONSTRUCTION OF EXISTING APRON AND THREE NOS TAXIWAYS AND ASSOCIATED WORKS AT VSI AIRPORT, PORTBLAIR

A. BACKGROUND

Veer Savarkar International (V.S.I) Airport, Port Blair is under the control of Indian Navy and AAI maintains the Civil Enclave covering a total area of 71.11 acres. V.S.I. Airport has a single runway 04/22 having dimension 3269m X 45m and the Civil Enclave has an apron of dimension 350m X 112 m and can accommodate 06 nos. of most narrow-body aircraft, that includes Airbus A320, Airbus A321, and Boeing 737 type of aircrafts at a time.

B. PROPOSAL

AAI had constructed an apron of 106 m x 75 m with one link taxiway at the center of dimension 131 m x 23 m during 2000-01. Further strengthening and expansion of apron from 106 m x 75 m to 350 m x 112 m (PCN 70/R/C/W/U suitable for A 320 / B 737-400) with two additional taxiways at both the ends was completed on 29.01.2010.

The coarse aggregate started disintegrating in 2016, thus creating FOD issues. CRRI vide report dated 12.02.18 recommended 250 mm overlay of M40 grade concrete as a permanent solution or 10 mm epoxy resin-sand mortar as a temporary measure for 2-3 years. AAI took up the temporary solution and completed the work on 05.04.19. At present the epoxy resin mortar started coming out from the existing apron at many places and cracks of concrete is reflecting over epoxy surface thus making it more susceptible for disintegration. Hence, the existing apron needs reconstruction after demolition as a permanent solution.

The work for construction of new apron of 220 m x 120 m (designed for 2 Nos. AB 321 and 2 Nos. B767-400) with link taxiway is in progress and after the completion of new apron, phase-wise Demolition and reconstruction of existing apron can be taken up.

Hence, the following scope of work is prepared for obtaining in-principle approval from the Competent Authority for the preparation of estimates to obtain AA & ES.

SCOPE OF WORK

The following scope of work is proposed for consideration and approval:

1. Demolition and reconstruction of existing apron of size 330m x 125m and 3 nos. of taxiways in a phase wise manner.
2. Demolition and Reconstruction of adjoining shoulder.
3. Reconstruction of Ramp area
4. Dismantling of existing old apron edge lights, transformer housing boxes etc.
5. Provision of standard markings and mandatory & information signage's to be provided as per DGCA CAR.
6. Development of Taxiway and Apron strips and grading of surrounding areas as per DGCA CAR specifications.
7. Provision of Apron Edge Lights and taxiway edge lights with CCR and AFL cables.
8. The slopes on reconstructed Taxiways, Apron, Taxiway Shoulders shall be in compliance to DGCA CAR.
9. Reconstruction of existing covered drain over taxiways shall be in compliance to DGCA CAR Para 3.9.19 – 3.9.21 (Taxiway on Bridges) and Provision for additional drainage system for apron as per site requirement, if any.
10. Diversion of existing services, if any, in the proposed apron area.
11. Provision of trench for crossing of cables etc.
12. Technical evaluation of strength of pavements before & after the completion of work and declaration of strength for commissioning of pavements.
13. Concept level and execution level safety assessment shall be done simultaneously as per Para 10.4.12 of C-SMS manual of AAI.
14. All the works to be carried out as per ICAO SARPs and DGCA CAR.
15. Any doubts, if so arises, may be referred to the Directorate of planning for clarification.

Encl: Layout plan indicating the location of existing apron to be reconstructed.

(Sunil Kumar Singh)
AGM (Arch)

(S. Mark Ekka)
Jt. GM (Arch)

VSI & PB

(Dr. Gursewak Manish)
GM (Plg)

(Shantanu Phalnikar)
GM (Arch)

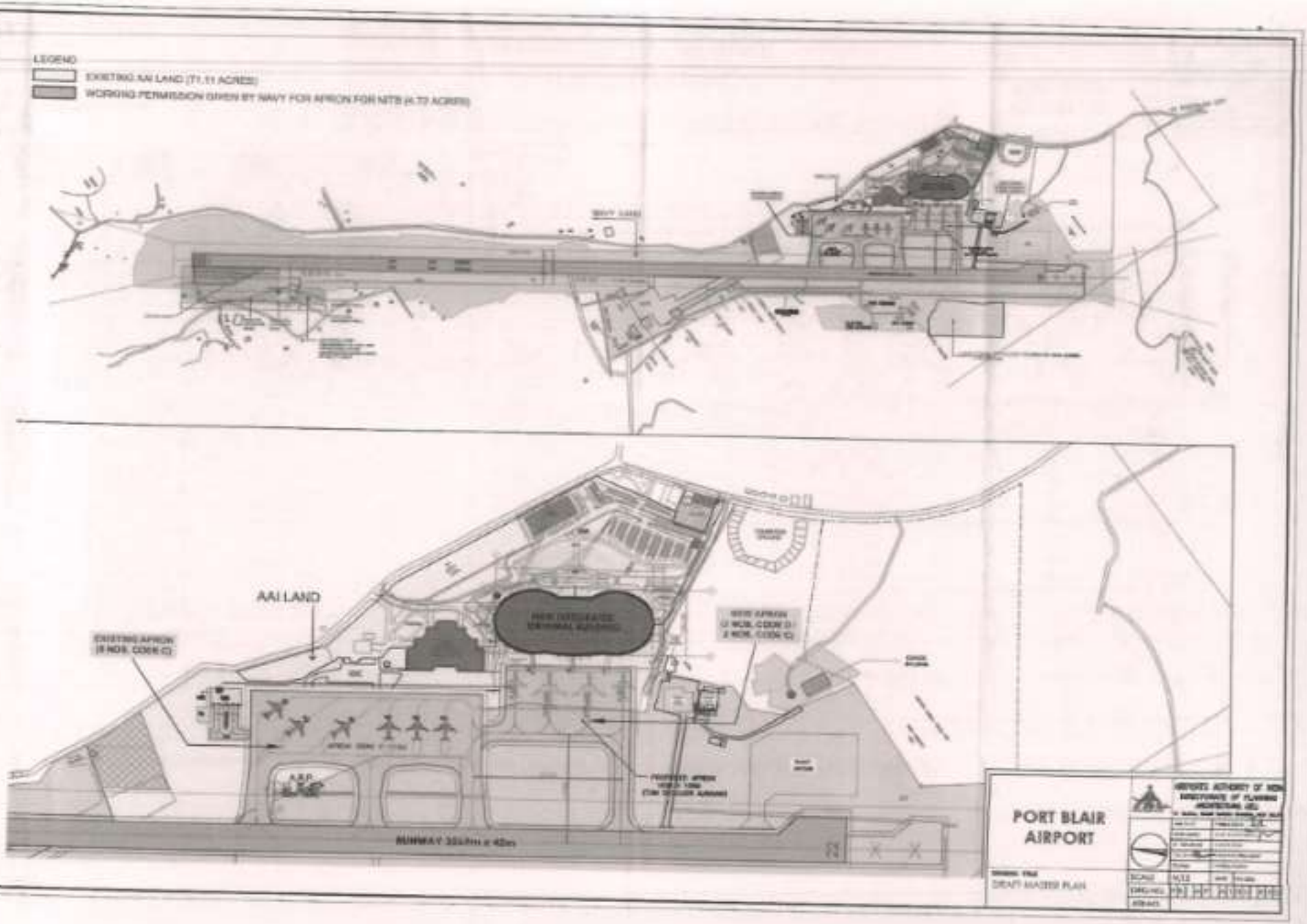
(Charul Shukla)
ED (Plg)

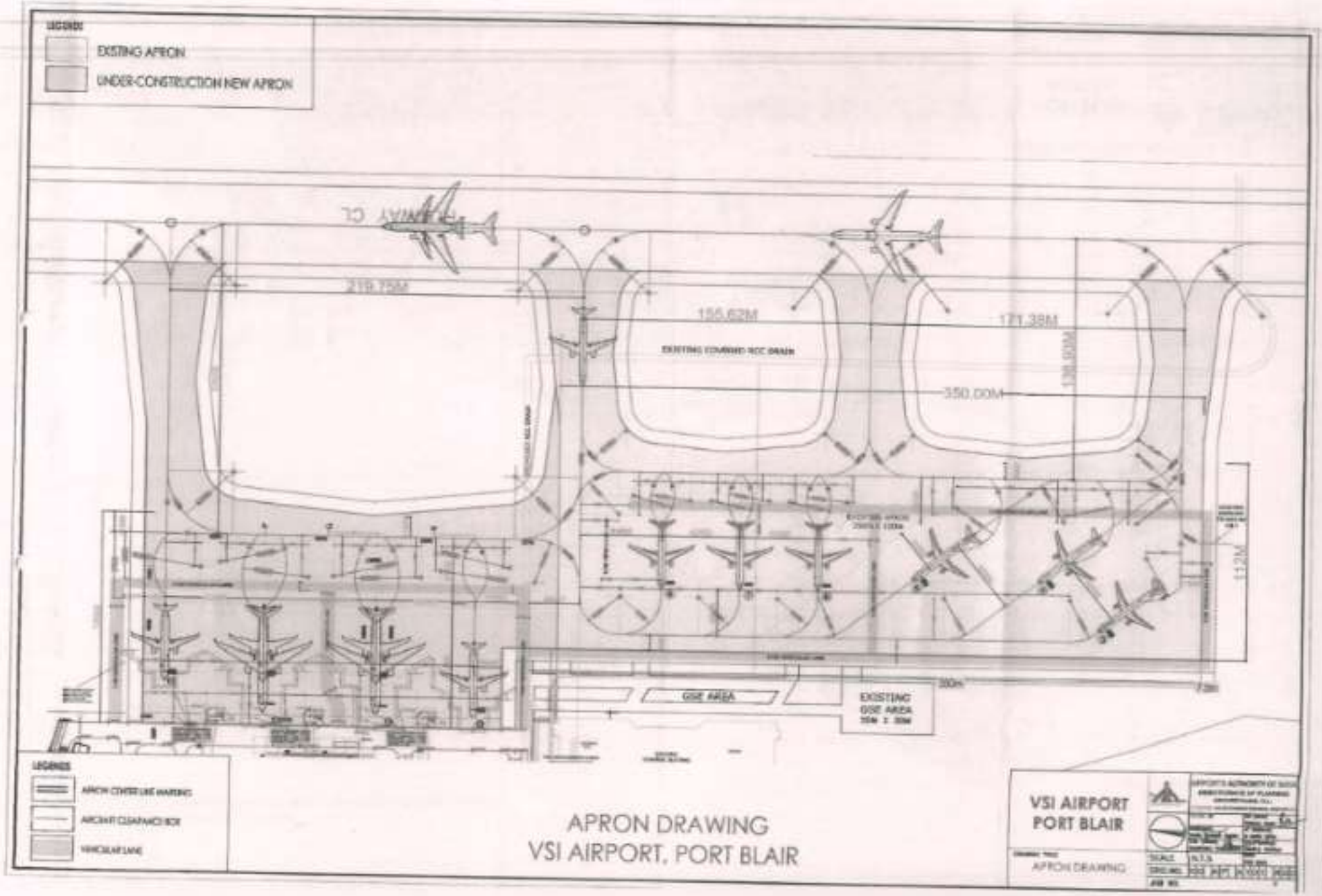
18/11/2023

(V A Chourey)
ED (OPS)

(O.P. Chugh)
ED (Engg) ER-NER

(A.K. Pathak)
Member (Plg)


LEGEND
EXISTING AAI LAND (71.11 ACRES)
WORKING PERMISSION GIVEN BY NAVY FOR APRON FOR MTB (4.72 ACRES)
AAI LAND
EXISTING APRON
(8 NOS. CODE C)
RUNWAY 3505m x 45m
PORT BLAIR
AIRPORT
DRAFT MASTER PLAN


LEGENDS
EXISTING APRON
UNDER-CONSTRUCTION NEW APRON
219.75M
155.62M
171.38M
350.00M
138.60M
112M
GSE AREA
EXISTING GSE AREA
LEGENDS
APRON CENTER LINE MARKING
AIRCRAFT CLEARANCE BOX
VEHICULAR LANE
APRON DRAWING
VSI AIRPORT, PORT BLAIR
VSI AIRPORT PORT BLAIR
APRON DRAWING
SCALE: N.T.S.

Annexure-4

Reconstruction of Old Apron - Line Estimate for Phase 01 (Modified)

Name of Work - Reconstruction of existing apron and three nos taxiways and associated works at VSI Airport, Portblair

		Area		Rate	Amount	
Total area of Apron to be reconstructed in phase 01: 185*125	=	23125.00 sqm				
		23125.00 sqm	@	28196	652032500	
				Rs 26000/ per sqm rate is derived from the already completed New Apron work in Year 2021. Add escalation @ 3% per annum. Rate per sqm = 26000x1.08 = Rs. 28,196/-		
Total area of Taxiway W3 to be reconstructed - 1*56*38 =		3672 sqm	@	28196	103735112	
[illegible] area 50*30	=	1500 sqm	@	28196	42294000	
RCC Drain (For additional length)	=	100 Metre			12500000	
					807562612	A

Cost for demolition (Existing Apron layers)

1)PQC						
Apron (PHASE 01)	185*125*0.40 =	11331.25 cum	@	2007.92/-(DSR 2021 rates)	22742551.88	
Taxiways W3	1*50*38*0.40	1824.76 cum	@	2007.92/-(DSR 2021 rates)	3662475.8	
					26405427.68	B
2)WMM/WBM						
Apron (PHASE 01)	185*125*0.35 =	8093.75 cum	@	205.45 (DSR 2021 rates)	1662880.34	
Taxiways W3	1*50*38*0.35	1203.4 cum	@	205.45 (DSR 2021 rates)	267749.13	
					1930644.47	C
Excavation beyond WBM/WMM						
Apron (PHASE 01)	185*125*1.00 =	24285.25 cum	@	225.45 (DSR 2021 rates)	6108582.81	
Taxiways W3	1*50*58*1.05	2859.2 cum	@	205.45 (DSR 2021 rates)	603250.59	
					6792833.4	D

	A+B+C+D = R1	841679617.33	E
Add for Electrical works @2% on E		16833592.35	F
	E+F = Rs	858504009.90	

		(B+C+D)
Add Cost Index at the rate of 55.19% on DSR items = (G)	1,90,26,520.17	for 1.5
Total amount of DSR items with GST	5,33,26,572.47	(j=B+G)
Total amount of DSR items without GST i.e. Rs [illegible]	4,67,17,853.71	
Total of all items (Rs/Ref)	47,13,13,890.58	
Add Departmental Charges @ 1% on [illegible]	4,81,55,604.21	K
Sub Total L	97,46,69,580.81	L+J
Add GST @ 18% on "L"	16,46,91,524.56	
Cost of work incl GST @18%=	1,07,80,33,105.47	M
Add for ESI @ 1.27% and PF @ 11% on 5% "L"	74,11,890.34	N
Sub Total R	1,08,57,41,795.81	(O=M+N)
Add Contingencies @ 3%	3,00,02,253.87	
Grand Total incl GST @18% =	1,11,57,44,249.68	
Say	112 crs	

MGM(E-1)

JT GM (E-C)

Reconstruction of Old Apron - Line Estimate for Phase 02 (Modified)

Name of Work : Reconstruction of existing apron and three Nos taxiways and associated works at [illegible] Airport, [illegible]

		Area		Rate	Amount	
Total area of Apron to be reconstructed in Phase 02- 105*125	=	[illegible] sqm				
Shoulder	7.50*125 =	[illegible] sqm				
		21562.50 sqm	@	[illegible]	[illegible]	
				Rs [illegible] per sqm [illegible] per unit from the recently completed New Apron work in Year 2021. Add escalation @ [illegible] per annum. Rate per sqm = [illegible]		
Total area of **Taxiways W1 ,W3** to be reconstructed - 2*[illegible]*[illegible] =		7144 sqm	@	[illegible]	[illegible]	
Coast guard Apron (in shoulders- [illegible]) **(Bay No. 01 & 02)**	=	[illegible] sqm	@	[illegible]	[illegible]	
					875387134	A

Cost for demolition (Existing Apron Layers)

		Quantity		Rate	Amount	
1)PQC						
Apron (Phase 02)	[illegible]	[illegible] cum	@	[illegible] DSR 2021 rates	[illegible]	
Taxiways W1 ,W3	[illegible]	[illegible] cum	@	[illegible] DSR 2021 rates	[illegible]	
Coast guard Apron (in shoulders- [illegible]) **(Bay No. 01 & 02)**		[illegible] cum	@	[illegible] DSR 2021 rates	[illegible]	
					[illegible]	B
2)WMM/WBM						
Apron (Phase 02)	[illegible]	[illegible] cum	@	225.45 DSR 2021 rates	[illegible]	
Taxiways W1 ,W3	[illegible]	[illegible] cum	@	225.45 DSR 2021 rates	[illegible]	
Coast guard Apron (in shoulders- [illegible]) **(Bay No. 01 & 02)**		[illegible] cum	@	225.45 DSR 2021 rates	[illegible]	
					2254839.06	C
Excavation beyond WBM/WMM						
Apron (Phase 02)	[illegible]	[illegible] cum	@	225.45 DSR 2021 rates	[illegible]	
Taxiways W1 ,W3	[illegible]	[illegible] cum	@	225.45 DSR 2021 rates	[illegible]	
Coast guard Apron (in shoulders- [illegible]) **(Bay No. 01 & 02)**		[illegible] cum	@	225.45 DSR 2021 rates	[illegible]	
					6763308.29	D

A+B+C+D= [illegible]	**914917186.15**	E
Add for Electrical works @[illegible]% on E	**18298342.70**	F
E+F = [illegible]	85025(?)477.85	

Add Cost Index at the rate of [illegible]% on DSR items = [illegible]	[illegible]	[illegible]
Total amount of DSR items with GST	[illegible]	[illegible]
Total amount of DSR items without GST [illegible]	[illegible]	
Total of all items [illegible]	[illegible]	
Operational area charges @ [illegible]% on [illegible]	[illegible]	
Sub Total =	[illegible]	
Add GST @ [illegible]% on [illegible]	[illegible]	
Cost of work incl GST [illegible]	[illegible]	M
Add for CE @ [illegible]% and [illegible] @ [illegible]% on [illegible]	[illegible]	N
Sub Total =	[illegible]	[illegible]
Add Contingencies @ [illegible]%	[illegible]	
Grand Total incl GST [illegible]	[illegible]	
Say	122 crs	

[illegible signature]

[illegible signature]
Jt GM (E-C)

Annexure- 5

GLOBAL e-TENDER (Tender ID: 2025_AAI_239392_1)
NOTICE INVITING TENDER

1. Airports Authority of India invites Global e -Tender through CPP Portal in 04 (Four) Pack System as per following details: -

a. "Class-I Local Supplier / Class-II Local Supplier / Non-Local Supplier" who are Original Equipment Manufacturer (OEM) of Threat Containment Vessel (TCV).

OR

b. "Class-I Local Supplier / Class-II Local Supplier / Non-Local Supplier" who are 100% Indian Subsidiary Company / Branch of Foreign Parent Company who is Original Equipment Manufacturer (OEM) of Threat Containment Vessel (TCV).

OR

c. "Class-I Local Supplier / Class-II Local Supplier" manufacturing in India under a license from a Foreign Manufacturer *(OEM of* Threat Containment Vessel (TCV) who holds Intellectual Property Rights and where there is a Technology Collaboration Agreement / Transfer of Technology Agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in Local Content *(Either Indian Associate / Partner of Foreign Manufacturer OR Foreign Manufacturer in its own capacity shall participate in the Tender as bidder).*

S. No.	Name of the work	Estimated Cost (Including Custom Duty and Excluding GST)	Earnest Money Deposit (Excluding GST)	Cost of Tender (Including GST & Non-refundable)
1.	Supply of Threat Containment Vessel (TCV) at various AAI Airports in India with 03 Years Onsite Warrantee with Spares & Consumables and Provision of Inhouse/Call Basis Maintenance for 03 Years after completion of Warrantee Period.	**Supply of TCV:** INR (₹) 1,46,46,98,198.00 **OR** USD ($) 1,70,26,583.00 **OR** EUR (€) 1,47,36,017.00 **Inhouse Maintenance & Supply of Spares** of **TCV:** INR (₹) 33,75,56,296.00 **OR** USD ($) 39,23,969.00 OR EUR (€) 33,96,082.00 **Total Cost:** INR (₹) 1,80,22,54,495.00 **OR** USD $ 2,09,50,552.00 **OR** EUR (€) 1,81,32,099.00	Earnest Money Deposit amounting to INR (₹) 2,05,22,545.00 OR USD ($) 2,38,567.00 OR EUR (€) 2,06,473.00 Excluding GST shall be submitted online or offline in the form of BG as per ***Annexure – XXIV*** by all bidders (other than those who are exempted from payment of EMD).	INR (₹) 25,000.00 **OR** USD ($) 291.00 **OR** EUR (€) 252.00

2. The Bill of Quantities (Indicative Bill of Quantity (BoQ)) is given in ***Annexure - II*** and detailed Technical Specifications of the Threat Containment Vessel (TCV) are given in SECTION - D of the Tender Document.

3. The tender is invited through the electronic tendering process and can be downloaded from the Central Public Procurement Portal (CPP Portal) with URL address "https://etenders.gov.in". Please note that the submission of the tender is only through the CPP Portal "https://etenders.gov.in". The tenders will not be accepted in any other form. Further, it may be noted that tenders which are duly submitted on CPP Portal shall only be final and tenders just saved without submission / publish will not be available for further processing. Bidders are requested to go through the CPP Portal for guidelines, procedures & system requirements. In case of any technical difficulty, bidders may contact on the following help desk numbers & email ids:

3.1 For queries relating to the process of online bid submission or queries relating to CPP Portal or other Technical Assistance on the Portal, please contact the 24x7 Helpdesk, on Telephone Numbers Tel: +91-11-24632950 (Extension No. 3512,3523,3520,3506), +91-11-24657900 or Email Address: eprochelp@aai.aero, etendersupport@aai.aero, amitmishra@aai.aero, sunil.km@aai.aero or gmit@aai.aero

3.2 Before submitting queries related to system, bidders are requested to follow the instructions given in CPP Portal and get their computer system configured according to the recommended settings for the CPP Portal.

3.3 Bidders are requested to mention the URL of the Portal and Tender ID in the subject while emailing any issue along with their Contact details.

3.4 For any issues / clarifications relating to the understanding of the tender(s) published, kindly contact the following Tender Inviting Authority / Bid Manager whose details are given below:

S. No.	Name of the Bid Manager	Designation	E-mail Id	Phone No.
1	Sanjay G. Kupate	AGM (AS)	snkupate@aai.aero	+91-11- 24632950 Extn. No. - 3553

3.5 In order to facilitate the Bidders, the AAI Help desk services shall also be available on all working days (except Sunday) between 0800 – 2000 hours and shall assist users related to the use of CPP Portal. The details of the help desk services along with other useful information regarding e-Tender process are given at the link https://www.aai.aero/en/Tender/Apply.

3.6 The AAI help desk numbers are intended only for queries related to the ease of use on CPP Portal and help needed on the operation of the Portal. However, AAI shall not be responsible for any reason to bidders for not submitting the bids in the CPP Portal. The Helpdesk services shall remain closed on all Govt. Gazetted Holidays.

4. The critical dates for this Tender are as given below:

S. No.	Activity	Date	Time in IST
1.	Published Date & Time	04.07.2025	1600 hrs. (IST)
2.	Tender Document Download / Sale Start Date & Time	04.07.2025	1630 hrs. (IST)
3.	Start Date & Time for raising queries by bidders	04.07.2025	1630 hrs. (IST)
4.	Closing Date & Time for raising queries by bidders	18.07.2025	1700 hrs. (IST)
5.	Date & Time of Pre-Bid Conference / Meeting with bidders	25.07.2025	1100 hrs. (IST)
6.	Closing Date & Time for response by AAI to the queries raised by bidders	04.08.2025	1700 hrs. (IST)
7.	Start Date & Time of Bid Submission	05.08.2025	1000 hrs. (IST)
8.	Last / End Date & Time of Bid Submission	28.08.2025	1700 hrs. (IST)
9.	Last Date & Time of receipt of Original Bank Guarantee for Earnest Money Deposit (EMD), if paid offline, in the form of Bank Guarantee as per ***Annexure - XXIV*** along with Letter of Undertaking as per ***Annexure - VIII(B)*** and Duly filled and signed Pre-Contract Integrity Pact as per ***Annexure - XII*** in the office of Bid Manager.	29.08.2025	1700 hrs. (IST)
10.	Date & Time of Opening of Bid (Tender Fees, EMD, Letter of Undertaking for Unconditional Acceptance, Letter of Undertaking from the bidder regarding debarment / blacklisting / restrainment, Power of Attorney / Authorization of Bidder and Duly filled and signed Pre-Contract Integrity Pact) ***(Pack-1)***.	29.08.2025	1730 hrs. (IST)
11.	Date & Time of Opening of PQQ Bids ***(Pack-2)***.	01.09.2025	1530 hrs. (IST)
12.	Date & Time of Opening of Technical Bids ***(Pack-3)***	19.09.2025	1500 hrs. (IST)
13.	Submission of Make in India (MII) Envelope *i.e. Duly Filled Original hardcopy of* ***Annexure - X(A), Annexure - X(B) and Annexure - X(C)***.	Prior to opening of Financial Bids.	
14.	Date & Time of Opening of Financial Bids ***(Pack-4)***.	06.10.2025	1500 hrs. (IST)
15.	Date & Time of Electronic Reverse Auction	Will be intimated after opening of Financial Bids.	
Note: AAI may at its discretion, extend / change the schedule of any activity by issuing a corrigendum on the e-Procurement Portal at http://etenders.gov.in/eprocure/app . In such cases, all right and obligations of AAI and the Bidders previously subjected to the Original schedule, shall be as per extended / changed schedule of that activity.			