

限閱文件 (投標) RESTRICTED (TENDER)**MEMO**

From <u>Director of Government Logistics</u> Ref. <u>in A1310422009</u> Tel No <u>2231 5226</u> Fax No. <u>2116 0103</u> Date <u>8 December 2010</u>	To <u>Chairman, Central Tender Board</u> (Attn. _____) Your Ref _____ in _____ Dated _____ Fax No. _____ Total Pages _____
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**Tender for the Supply of Air Traffic Management System and
Provision of Related Services to the Civil Aviation Department**

A. Type and Duration of Contract

This tender, at an estimated value of HK\$860 million, will be concluded as a contract for the supply of an Air Traffic Management System (ATMS) and provision of related services to the Civil Aviation Department (CAD). The contractor shall install and assist in commissioning of the ATMS in two phases. Phase 1 shall be ready for use not later than 65 weeks from the access date of the new CAD buildings or within 60 weeks from the Contract Date, whichever is the later. The remaining parts of the ATMS shall be ready for use within 39 weeks from the access date of the Phase 2 buildings¹.

B. Brief Description of Contract

2. The existing air traffic management system of CAD was commissioned in 1997. The capacity and functionalities of the existing system will not be able to cope with the projected air traffic growth in Hong Kong. A new ATMS is required in order to meet the latest development and growth of the Hong Kong International Airport, which serves as a major air traffic hub and gateway in the Asia and Pacific Region. The new ATMS will have to be on par with the advanced air traffic management systems adopted globally. It will have to be equipped with enhanced data transmission, processing and display functionalities to provide flight data processing, surveillance data processing and display positions to support air traffic control (ATC) operations at the new ATC Centre².

¹ CAD Buildings comprise 3 main adjacent buildings under construction outside the airport restricted areas, i.e. a new Air Traffic Control Centre (ATCC) Building, Facility Building and Office & Training Building. Phase 2 Buildings refer to the existing ATC Complex and the existing South Aerodrome Tower Building, both inside the airport restricted area.

² ATC Centre will be located inside the new ATCC Building.

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"Tenderer B" = Raytheon Company, the successful tenderer.

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C. Authority to Invite Tenders

3. This invitation to tender is subject to the World Trade Organization Agreement on Government Procurement (WTO GPA). Approval from the Director of Government Logistics (DGL) was given to issue an open tender for the requirement. Details of the tender issued are as follows:

- (a) a tender notice was published in the Government Gazette and daily press on 27 November 2009 and on the GLD's website during the tender period; and
- (b) tender notification letters were sent to potential bidders and the suppliers on the relevant GLD suppliers list and the Trade Commissioners in Hong Kong.

D. Relevant Dates of Tender Invitation

- 4. (a) Tender issued on : 27 November 2009
- (b) Tender closed on : 19 February 2010
(extended from 5 February 2010 at the request of tenderers to allow them more time to prepare the tenders.)
- (c) Validity of tenders up to : 19 February 2011

E. Tenders Received

- 5. (a) 45 local suppliers and 43 suppliers from places outside Hong Kong were invited.
- (b) Five offers from five suppliers outside Hong Kong were received. These suppliers, in alphabetical order, are:

Tenderers' name	{	(i)	[REDACTED]	Tenderer A
		(ii)	[REDACTED]	Tenderer B
		(iii)	[REDACTED]	Tenderer C
		(iv)	[REDACTED] and	Tenderer D
		(v)	[REDACTED]	Tenderer E

F. Marking Scheme for Tender Invitation

6. On the recommendation of the Central Tender Board at its meeting held on 8 October 2009, the Permanent Secretary for Financial Services and the Treasury (Treasury) approved the use of a marking scheme with a quality to price weighting of

Annex A
Annex B

40:60 for the evaluation of this tender. A copy of the Secretary for Financial Services and the Treasury's approval memo is at **Annex A**. The approved evaluation criteria is at **Annex B**.

G. Tender Evaluation

7. All offers received were evaluated by a Tender Assessment Panel (TAP) comprising the following officers from the Air Traffic Engineering and Standards Division (AESD) and the Air Traffic Management Division (ATMD) of CAD:

Chairperson: Chief Electronics Engineer (Projects), AESD

Members: Senior Operations Officer (Projects) 1, AESD;
Senior Operations Officer (Projects) 2, AESD;
Senior Electronics Engineer (Projects) 1, AESD;
Senior Evaluation Officer (1), ATMD;
Electronics Engineers (13), (15) and (28), AESD;
Project Officers (2) and (4), AESD; and
Technical Support Officer (1), AESD.

8. The tender evaluation was conducted by the TAP in six stages. The evaluation results of each stage are summarised as follows:

(a) Stage 1 - Completeness Check

- (i) The five offers were checked for and found in compliance with the completeness and compliance requirements stipulated in Part I - Lodging of Tender and Part II - Conditions of Tender of the Tender Documents.

(b) Stage 2 - Assessment of Compliance with Mandatory Requirements

- (i) The five offers were checked against their compliance with the mandatory requirements as specified in Appendix B to Part II - Conditions of Tender at **Annex C**.
- (ii) All of the five offers fulfilled the mandatory requirements and proceeded to Stage 3 evaluation.

(c) Stage 3 - Assessment of Compliance with Essential Specifications

- (i) The five offers were checked against their compliance with the essential specifications set out in Part VII - Specifications of the Tender Documents.

Annex C

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- (ii) Visits were also conducted to the factories of the five tenderers in accordance with clause 8.2 of the Conditions of Tender to verify compliance with the essential requirements.

- (iii) The TAP ^{Tenderers A, B and E} concluded after the technical evaluation that the offers from [redacted] and [redacted] complied with all the essential specifications while the offers from [redacted] and [redacted] did not. ^{Tenderer C}

Tenderer D

Details of non-compliance of the two unsuccessful tenderers' offers

- (iv) The offers from [redacted] and [redacted] failed in Stage 3 evaluation. ^{Tenderer C} ^{Tenderer D}

(d) Stage 4 - Evaluation of Technical/ Quality Features and Calculation of Technical Score

^{Tenderer A}

- (i) The weighted technical scores of the offers from [redacted] ^{Tenderer B} and [redacted] were worked out in accordance with the following formula: ^{Tenderer E}

The technical score of a tender that has passed Stages 1, 2 and 3 evaluation

$$= 40 \times \frac{\text{Total marks attained by the tender being assessed}}{\text{Highest total marks among the tenders that have passed Stages 1, 2 and 3 evaluation}}$$

- (ii) The total marks and the weighted technical scores attained by the three offers are summarised below:

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	<u>Tenderer</u>	<u>Total Mark</u>	<u>Technical Score</u>	
Tenderer A				Technical scores of three tenderers
Tenderer B				
Tenderer E				

(iii) These three offers proceeded to Stage 5 evaluation.

(e) Stage 5 - Price Assessment

Tenderer A Tenderer B

- (i) The weighted price scores of the offers from and were worked out in accordance with the following formula: Tenderer E

$$\begin{array}{l} \text{The price score of a} \\ \text{tender that has passed} \\ \text{Stages 1 to 4} \\ \text{evaluation} \end{array} = 60 \times \frac{\begin{array}{l} \text{Lowest tender price among the} \\ \text{tenders that have passed} \\ \text{Stages 1 to 4 evaluation} \end{array}}{\begin{array}{l} \text{Price of the tender} \\ \text{being assessed} \end{array}}$$

- (ii) Due to inconsistency in the prices of various items quoted, clarifications were conducted with all the three tenderers and the results of the clarifications are summarised at In short, the clarifications resulted in no change to the prices of and

Clarification of price information with tenderers

(iii)

- (iv) The total prices and the weighted price scores attained by the three offers are summarised below:

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<u>Tenderer</u>	<u>Total System Price</u> (in HK\$)	<u>Total Annual Maintenance Charges</u> (in HK\$)	<u>Total Price*</u> (in HK\$)	<u>Price Score</u>
Tenderer A				
(a) nominal amount				/
(b) net present value [^]				
Tenderer B				
(a) nominal amount				/
(b) net present value [^]				
Tenderer E				
(a) nominal amount				/
(b) net present value [^]				

Notes: (1) *The total price comprises the total system price for items 1 to 9B of Schedule 12 (including such items as the hardware and software, documentation, training, initial spare parts and installation) and the total annual maintenance charges of hardware and software for Phase 1 and Phase 2 of the AFMS project after respective warranty periods as set out in items 10 to 13 of Schedule 12.

(2) [^]Net present value (NPV) is used for price evaluation.

(3) Both ^{Tenderer B} and ^{Tenderer E} quoted in US dollars. Conversion is based on the exchange rate of US\$1 = HK\$7.7975 ruling on the tender closing date of 19 February 2010.

(4) ^{Tenderer B}

(f) Stage 6 - Calculation of Combined Score

(i) The formula to calculate the combined scores of the offers from ^{Tenderer A} and ^{Tenderer B} is as follows:

^{Tenderer A} ^{Tenderer B} ^{Tenderer E}
Combined Score = Technical Score + Price Score

(ii) The combined scores of these three offers are:

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	<u>Tenderer</u>	<u>(a) Technical Score</u>	<u>(b) Price Score</u>	<u>(a) + (b) Combined Score</u>
Tenderer A	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Tenderer B	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Tenderer E	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

9. The TAP has recommended acceptance of the offer from ^{Tenderer B} [REDACTED] as it has achieved the highest combined score. The TAP also considers that the recommended tender prices from ^{Tenderer B} [REDACTED] are fair and reasonable [REDACTED]. The TAP considers that the lower prices than the original estimate may be due to the tenderers' anticipation of keen competition.

H. [REDACTED]

10. [REDACTED]

11. ^{Tenderer B} [REDACTED]

^{Tenderer B}

12. ^{Tenderer B} [REDACTED]

I. Comparison with the Last Purchase

13. A price comparison with the last purchase is provided below:

(a) Last tender reference and date: A06006/92 (closing on 24 June 1994)

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- (b) Name of last supplier : [REDACTED]
- (c) Description of the systems : Radar Data Processing and Display System/ Flight Data Processing System/ Simulator System
- (d) Quantity : one set
- (e) Comparison : as summarised below

System of successful tenderer	Price the	(i) Last Tender (US\$)	(ii) This Tender (US\$)	(ii) VS (i) Difference (US\$)
		Equipment Cost (FIS/ HK)	[REDACTED]	[REDACTED]

14. CAD has advised that the above prices are not comparable. The existing systems were commissioned in 1997 and without backup systems. The new ATMS is much larger in scale (3 systems including the main, the fallback and the ultimate fallback systems), more complex and with much higher capability to handle the projected increase in traffic movements. For instance, the number of air traffic controller working positions are more than double that under the old systems to cope with the increasing workload. The features of the new ATMS will also far exceed the existing systems.

15. [REDACTED]

Details of
compliant
received

J. [REDACTED]

16. [REDACTED]

17. [REDACTED]

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K. Recommendation

18. The Board is requested to recommend acceptance of the offer with the highest combined score (the lowest price) as summarised below:

Tenderer recommended	:	[REDACTED]	> Tenderer B
Manufacturer	:	[REDACTED]	
Place of origin	:	U.S.A.	
Items, descriptions and rates	:	as per Annex H	
Recommended total amount	:		
(a) One-off cost (revised)	:	US\$56,950,513.00 (approx. HK\$444,071,625.12)	
(b) Recurrent cost	:	US\$5,463,518.00 (approx. HK\$42,601,781.61)	
Recommended total amount (revised)	:	US\$62,414,031.00 (approx. HK\$486,673,406.73)	
Completion dates	:		
(a) Phase 1 ATMS	:	within 65 weeks from the access date of the new CAD buildings or 60 weeks from the Contract Date, whichever is the later	
(b) Phase 2 ATMS	:	within 39 weeks from the access date of the Phase 2 buildings	
Warranty period	:	<u>Hardware</u> 24 months for each of Phase 1 and Phase 2 from the date of the Acceptance Certificate <u>Software</u> 60 months for each of Phase 1 and Phase 2 from the date of Acceptance Certificate	
Payment schedule	:	<u>One-off Total System Price</u> As per Schedule 13 of the Tender Documents and copied at <u>Annex I.</u>	

Annual Maintenance Charges
To be paid annually in advance

L. Availability of Funds

19. The Director-General of Civil Aviation has confirmed that funds are available for the purchase.

M. Declaration of Interest

20. All officers involved in preparing the tender document, including the tender specifications, and assessing the tenders, had declared, in accordance with SPR 186, that there was no conflict of interest (actual, potential or perceived) for them to take part in the process.

N. Compliance with WTO GPA and Tender Requirements


21. CAD confirms that the recommended offer complies with the tender requirements. It also confirms that all clarifications were sought in accordance with the relevant tender terms and SPR 365. WTO GPA requirements have also been complied with.

O. Contact Person

22. Mr YEUNG Hoi-wan, Peter, Chief Electronics Engineer (Projects) of CAD, stands ready to attend, if necessary, the Board meeting to answer any questions from the Board.

P. Name and Telephone Number of Coordinating Officer

23. Mr MC YIP, Principal Supplies Officer (P1), is the coordinating officer for this tender. He may be contacted on 2231 5229.


(Mrs Cassandra CHUI)
for Director of Government Logistics

Encls.

c.c. Director-General of Civil Aviation
(Attn.: Mr Peter YEUNG)

RESTRICTED (TENDER)

Annex A

MEMO**By FAX**

From Secretary for Financial Services
and the Treasury
Ref. in FT 38/654
Tel. No. 2810 3818
Fax No. 2869 4519 Total Pages: 1
Date 14 October 2009

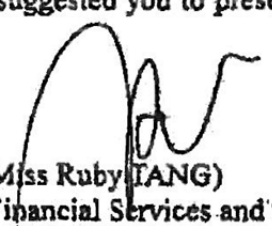
To Director of Government Logistics
(Attn: Mr YIP Man-chung)
Your Ref. (-) & (-) in A1310422009
Dated 2 & 7 October 2009 Fax No. 2807 2764

**Request for Approval to use Marking Scheme and Assessment Criteria -
Air Traffic Management System for Civil Aviation Department**

At its meeting held on 8 October 2009, the Central Tender Board (the Board) considered your submission and memorandum under reference. On the advice of the Board and subject to the comments in the ensuing paragraphs, the Permanent Secretary for Financial Services and the Treasury (Treasury) gave approval for you to proceed with the tender exercise on the basis of the proposed marking scheme and assessment criteria set out in your submission, as supplemented by your memorandum of 7 October 2009.

2. Noting from Note (h) of Annex B to your memorandum of 2 October 2009 that the experience of a Sub-contractor proposed to be appointed by the Tenderer would also be considered, the Board asked if there was any binding mechanism that could ensure the same Sub-contractor or a replacement with comparable experience to be engaged throughout the contract period. Whilst confirming that tenderers would be requested to submit a letter of intent or undertaking signed between tenderers themselves and their sub-contractors for engaging the latter in the contract if the former was awarded the contract, your representatives agreed in the meeting to check whether a binding clause had been in place and if not incorporate one in the tender document.

3. Referring to page 1 of Annex A, the Board noted that the essential specifications were assessed in Stage 3 together with the desirable features instead of under "Stage 2 - Assessment of Compliance with Mandatory Requirements". As tenderers failing to meet the essential specifications would be disqualified, the Board considered that these essential specifications had to be formulated in a clear and practical terms without the need for judgemental assessment. Unlike the essential specifications, non-compliance with the desirable features under the same Stage did not affect the conformity of tenderers. To help tenderers better understand the implications of the two assessments, the Board suggested you to present them as two separate stages.


(Miss Ruby IANG)

for Secretary for Financial Services and the Treasury

[APM30-12]

14-OCT-2009 14:57

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99%

TOTAL P.01
P.01

An Extract of the Tender Documents

Tender Ref. : PT/0230/2009

File Ref. : A1310422009

23. ~~Tenderer's Response to Government Enquiries~~

23.1 In the event that the Government Representative determines that

- (a) clarification of any tender is necessary; or
- (b) certain information or documents is/are missing in the Technical Proposal, save for those items where it is provided that a Tenderer's failure to submit on or before the Tender Closing Date will lead to disqualification or result in its tender not being considered further,

it may, but is not obliged to, request the Tenderer concerned to make the necessary clarification, or submit the missing item. Each Tenderer shall thereafter within five working days or such other period as the Government may allow submit such clarification or missing item. A Tender will not be considered if the requested clarification or missing item is not provided as required by the deadline, or in the case of clarification, such clarification is not acceptable to the Government. As an alternative to seeking clarification or submission, the Government may, at its discretion, proceed to evaluate the tender on an as is basis, or disqualify the Tenderer concerned.

24. Evaluation Criteria and Marking Scheme

24.1 A two-envelope approach with a quality to price weighting of 40:60 will be adopted for tender evaluation whereby the price assessment will be conducted separately and subsequent to the technical assessment. All calculations of scores will be rounded to 2 decimal places. For tender evaluation, an assessment panel will be formed. The assessment panel will evaluate the tenders based on the tender requirements in six stages as detailed below:

Stage 1 – Completeness Check

- (a) Tenders received will be checked to ensure their completeness and compliance with the essential procedural requirements stipulated in Part I – Lodging of Tender and Part II – Conditions of Tender of the Tender Documents, i.e., whether the tender is submitted in accordance with Part I – Lodging of Tender; whether a signed Offer to be Bound has been submitted in the form set out in Part VI; whether the Statement of Compliance is submitted in accordance with Clause 5.4 of Part II – Conditions of Tender; and whether the Tenderer has agreed to the tender validity period specified in Clause 17 of Part II – Conditions of Tender.
- (b) Any tender which fails in the aforementioned check will not be considered further. Those tenders which have passed Stage 1 evaluation will proceed to Stage 2 evaluation.

- (b) For the purposes of calculating the technical score which accounts for 40% of the final score, the highest scoring tender after the assessments will be given the maximum technical score of 40 and the remaining tenders will be given a technical score in accordance with the following formula :

$$\text{Technical score of a tender that has passed Stages 1, 2 and 3 evaluation} = 40 \times \frac{\text{Total mark attained by the tender being assessed}}{\text{Highest total mark among the tenders that have passed Stages 1, 2 and 3 evaluation}}$$

Those tenders which have passed Stages 1 to 4 evaluation will proceed to Stage 5 evaluation.

Stage 5 – Price Assessment

The price proposals of those tenders which have passed Stages 1 to 4 evaluation will be evaluated.

- (a) The lowest tender price submitted by a Tenderer amongst all other Tenderers will be given the highest price score of 60 and the rest will be given a price score in accordance with the following formula :

$$\text{Price Score of a tender that has passed Stages 1 to 4 evaluation} = 60 \times \frac{\text{Lowest tender price among the tenders that have passed Stages 1 to 4 evaluation}}{\text{Tender price of the tender being assessed}}$$

- (b) For price comparison purposes, the tender price will be assessed on the basis of (i) the Total System Price (viz the sum total of items 1 to 9B of Schedule 12); and (ii) the total annual hardware and software maintenance charges for Phase 1 ATMS and Phase 2 ATMS payable over the Contract Period after expiry of the respective Warranty Period as applicable to each of them based on the annual maintenance charges as set out in items 10 to 13 of Schedule 12. Calculation of net present value will be used for price evaluation.

Stage 6 – Calculation of Combined Score

The technical score and price score will be added to give the combined score. Without prejudice to the rights and powers of the Government under these Conditions of Tender, the Tenderer with the highest combined score will normally be recommended for the award of the Contract.

Tender Ref.: PT/0230/2009
File Ref. : A1310422009

~~Appendix B~~

List of Mandatory Requirements

Assessment of Compliance with Mandatory Requirements:

Item	Tender Reference	Mandatory Requirements
1.	Schedule 14 of Part V of the Tender Documents	The Tenderer shall confirm full compliance with all the essential specifications in Schedule 14 of Part V of the Tender Documents.
2.	Schedule 4 of Part V of the Tender Documents	The Tenderer shall submit in Schedule 4 of Part V of the Tender Documents an Implementation Plan which complies with all the Key Dates specified in Schedule 4.
3.	Schedule 3A of Part V of the Tender Documents	<p>The Tenderer must have supplied, installed and assisted in the commissioning of one or more air traffic management systems for the purposes of air traffic control in at least one (1) air traffic control centre (ATCC) as evidenced by details of reference contract(s) to be provided by the Tenderer in Schedule 3A. The supply, installation and assistance in the commissioning under the reference contract(s) must have been completed within the last 10 years preceding the Tender Closing Date.</p> <p>The air traffic management system at any one of the aforementioned ATCC must have been operated as the main system with no less than 40 ATCC air traffic controller working positions to provide air traffic control services for no less than 6 consecutive months within the last 10 years preceding the Tender Closing Date. In addition, the air traffic management system must have the capacity and capability to handle no less than 2,000 active flight plans at any one time during the aforementioned 6-month period.</p>
4.	Schedules 3A and 16A of Part V of the Tender Documents	<p>The Tenderer or its proposed Sub-contractor must have supplied, installed and assisted in the commissioning of one or more ultimate fallback system(s) in at least one (1) air traffic control centre (ATCC) as evidenced by details of reference contract(s) to be provided by the Tenderer in Schedule 3A. The supply, installation and assistance in the commissioning under the reference contract(s) must have been completed within the last 10 years preceding the Tender Closing Date.</p> <p>The ultimate fallback system at any one of the aforementioned ATCC must have been operated as the main or backup system with no less than 10 air traffic controller working positions to provide air traffic control services for no less than 6 consecutive months within the last 10 years preceding the Tender Closing Date.</p>

Notes

- (1) "Tenderer" means a company which submits a tender in response to this invitation to tender.
- (2) For the purposes of the mandatory requirement set out in items 3 and 4 above:
- (a) The Tenderer shall specify in Schedule 3A of Part V of the Tender Documents details of the reference contracts which demonstrate that the Tenderer fulfils the mandatory requirement in items 3 and 4 above.
 - (b) A reference contract will be considered regardless of whether it was a main contract or a sub-contract provided that in either case, the Tenderer must have been responsible for the supply and installation and the provision of assistance in the commissioning of the relevant system as mentioned in item 3 or 4 above, where applicable, under the relevant reference contract.
 - (c) A reference contract in relation to a project implemented by a joint venture will not be considered if the Tenderer was not the joint venture itself and only participated in that joint venture as a party.
 - (d) Subject to (e) below, a contract entered into by a shareholder or joint venture party of the Tenderer (if the Tenderer is an incorporated joint venture) will not be considered.
 - (e) A reference contract entered into by a company, where
it is a wholly-owned subsidiary of the Tenderer (direct or indirect), or
the Tenderer is a wholly-owned subsidiary of that company (direct or indirect), or
that company and the Tenderer are both wholly-owned by the same holding company (direct or indirect),
will be considered as if it were entered into by the Tenderer concerned. Whether or not a company is a wholly-owned subsidiary or a holding company wholly owning another shall be determined based on the principles set out in the Companies Ordinance, Cap 32, regardless of the place of incorporation of the relevant companies.
 - (f) A reference contract in relation to a local or international project will be considered.
 - (g) For the purposes of the mandatory requirement in item 3 only, a reference contract entered into by any Sub-contractor proposed to be appointed by the Tenderer for the Contract will not be considered.
 - (h) For the purposes of the mandatory requirement in item 4 only, a reference contract entered into by a Sub-contractor proposed to be appointed by the Tenderer will be considered provided that the Sub-contractor will be responsible for the supply and installation and provision of assistance in the commissioning of the ultimate fallback system under the Contract to be awarded. References to "Tenderer" in Notes (2)(b) to (e) above may also mean the proposed Sub-Contractor for the purposes of determining compliance with the mandatory requirement in item 4.

* * * * *