

DATE: 03/04/2008
OUR REF: DT-TN-0012
MALAYSIAN METEOROLOGICAL DEPARTMENT

**TENDER FOR THE SUPPLY AND DELIVERY OF
600 gm METEOROLOGICAL HIGH SOUNDING BALLON AND 30 gm PILOT BALLOON.**

GENERAL INFORMATION

1.0 INTRODUCTION

- 1.1 The project for the supply and delivery of Meteorological High Sounding Balloons, comprising **600 gm Meteorological High Sounding Balloons and 30 gm Pilot Balloons**, to be used for upper air observation.

2.0 PRICE QUOTATION

- 2.1 Prices quoted for imported items shall be **FOB on board ship**.
- 2.2 You offered price shall include packing and packaging.
- 2.3 The price quoted must be itemized with unit price explicitly stated.

3.0 QUANTITY

The quantity of balloons required is as follows:-

- | | | | |
|----|---|---|-------------|
| a) | 600 gm Meteorological High Sounding Balloon | - | 6,200 units |
| b) | 30 gm Pilot Balloon | - | 6,600 units |

4.0 WARRANTY

- 4.1 All items are to be fully guaranteed for a period of at least **fifteen (15) months** against any defects. Warranty replacement shall be supplied at no additional charge of any nature to MMD. The effective date of all warranties shall commence upon the date of delivery. You must indicate the length of the warranty period for all the items offered.

5.0 DELIVERY

- 5.1 Delivery are required to be completed within **three (3) months** of acceptance of tender to the following destinations:

a) For 600 gm Meteorological High Sounding Balloon

No.	Station	Balloon Supply (Subject to changes)
1	Stesen Udara Atas KLIA Sepang, Sepang, Selangor	670
2	Stesen Udara Atas Bayan Lepas Bayan Lepas, Pulau Pinang	840
3	Stesen Udara Atas Kuantan Kuantan, Pahang	780
4	Stesen Udara Atas Kota Bharu Kota Bharu, Kelantan	780
5	Stesen Udara Atas Kota Kinabalu Kota Kinabalu, Sabah	710
6	Stesen Udara Atas Tawau Tawau, Sabah	780
7	Stesen Udara Atas Kuching Kuching, Sarawak	840
8	Stesen Udara Atas Bintulu Bintulu, Sarawak	800
	Total	6200

b) For 30 gm Pilot Balloon

No.	Station	Balloon Supply (Subject to changes)
1	Stesen Meteorologi KLIA Sepang Sepang, Selangor	770
2	Stesen Meteorologi Bayan Lepas Bayan Lepas, Pulau Pinang	420
3	Stesen Meteorologi Kuantan Kuantan, Pahang	360
4	Stesen Meteorologi Kota Bharu Kota Bharu, Kelantan	820
5	Stesen Meteorologi Sitiawan Sitiawan, Perak	1210
6	Stesen Meteorologi Kota Kinabalu Kota Kinabalu, Sabah	650
7	Stesen Meteorologi Sandakan Sandakan, Sabah	930
8	Stesen Meteorologi Kuching Kuching, Sarawak	790
9	Stesen Meteorologi Bintulu Bintulu, Sarawak	650
	Total	6600

6.0 VALIDITY OF OFFER

- 6.1 Your offer shall be valid for a period of not less than **six (6) months** from the closing date of the tender **21 APRIL 2008**.

TECHNICAL SPECIFICATION FOR METEOROLOGICAL HIGH SOUNDING BALLOON

1.0 INTRODUCTION

The Meteorological High Sounding Balloon is required for upper air observations. Two (2) types of balloons have been used for a different height and monitoring purposes, they are 600 gm of High Sounding Balloon and 30 gm pilot balloon.

2.0 600 gm METEOROLOGICAL HIGH SOUNDING BALLOON

2.1 General

This type of balloon is inflated with hydrogen gas and carries into the atmosphere a load consisting of a radiosonde. With this payload, the balloon is expected to ascend at a rate of 5 – 6 m/s and reaches a height of at least **25 km**.

2.2 Technical specification

- | | | |
|------------------------|---|--|
| (a) Material | - | Natural rubber |
| (b) Weight | - | 600 gm \pm 10 gm |
| (c) Colour | - | Uncolored |
| (d) Bursting altitude | - | 25 km (minimum) |
| (e) Height performance | - | Balloons supplied should exceed the minimum bursting altitude during daylight ascent under fair weather condition. |
| (f) Neck Diameter | - | 3.0 – 6.0 cm (nominal) |
| (g) Neck length | - | 12.0 cm (nominal) |

2.3 Packing Requirement

Balloons should be individually packed in sealed bags.

2.4 Test data

Factory test data on the quality of the balloons as well as on the attainable ascent height vs payload graphs/table for the type of meteorological high sounding balloons offered should be supplied for evaluation.

2.5 Warranty

The balloons and the other required accessories shall have a warranty for a period of 15 months from the date of acceptance. Within this period, balloons and the other required accessories found defective before sounding (ascent) should be replaced at no cost to Malaysian Meteorological Department.

2.6 Statements Of Compliances

Para by para statements of compliance/non-compliance should be submitted with the tender offer.

2.7 Samples

Two balloons must be submitted together with the tender offer for technical evaluation. These samples should be given free of charge and will not be returned.

2.8 Accessories

Successful company should supply one (1) set of balloon adaptor complete with other required accessories to each site and additional 2 sets as spares to be delivered to MMD Headquarter.

3.0 30 gm PILOT BALLOON

3.1 General

This type of balloon is required for measuring upper winds. The balloon is inflated with hydrogen and then released into the atmosphere. The path of the balloon is then tracked with a pilot balloon theodolite. Its azimuth and elevation readings are taken at successive intervals of time for the computation of wind parameters.

3.2 Technical Specification

- | | | |
|-----------------------|---|---|
| a) Material | : | Natural rubber |
| b) Weight | : | 30 gm ± 1 gm |
| c) Color | : | Red |
| d) Bursting Altitude | : | 9 km (minimum) during clear sky |
| e) Height performance | : | Balloons supplied should exceed the minimum bursting altitude during daylight ascent under clear sky. |
| (f) Neck Diameter | - | 1.4cm (nominal) |
| (g) Neck length | - | 8.0 cm (minimum) |

3.3 Operational Data

- a) Payload : 10 gm
- b) Free Lift : 80 gm
- c) Ascent rate : 2.5 meters / sec (150metres/min)

3.4 Packing Requirements

Balloon supplied should be individually packed in sealed bag.

3.5 Test Data

Factory test data on the quality of the balloons as well as on the attainable ascent height vs payload graphs/table for the type of meteorological high sounding balloons offered should be supplied for evaluation.

3.6 Warranty

The balloons and other required accessories shall have a warranty for a period of 15 months from the date of acceptance. Within this period, balloons and the other required accessories found defective before sounding (ascent) should be replaced at no cost to Malaysian Meteorological Department.

3.7 Statement Of Compliance

Para by para statements of compliance/non-compliances should be submitted with the tender offer.

3.8 Samples

Two balloons must be submitted together with the tender offer for technical evaluation. These samples should be given free of charge and will not be returned.

3.9 Accessories

Successful company should supply one (1) set of balloon adaptor complete with other required accessories to each site and additional 2 sets as spares to be delivered to MMD Headquarter.

4.0 BROCHURE AND TECHNICAL DETAILS

You must be submitted with original brochure and other related technical details for all items proposed.

ATTACHMENT 1

**TENDER FOR THE “SUPPLY AND DELIVERY OF 600 gm METEOROLOGICAL HIGH
SOUNDING BALLOON AND 30 gm PILOT BALLOON”
TENDER NO: JMM (S).PPP02/806/01/08 06
OUR REF : DT/TN 0012**

COMPLIANCE TABLE

No.	Item	Compliance Yes or No	Comments/Remarks
1.0	600 gm METEOROLOGICAL HIGH SOUNDING BALLOON		
1.1	Technical Specification		
a.	Material - Natural rubber		
b.	Weight - 600 gm ± 10 gm		
c.	Colour - Uncolored		
d.	Bursting altitude - 25 km (minimum)		
e.	Ascend at a rate of 5-6 m/sec		
f.	Height performance- Balloons supplied shall exceed the minimum bursting altitude during daylight ascent under fair weather condition.		
g.	Neck Diameter- 3.0 – 6.0 cm(nominal)		
h.	Neck Length – 12.0 cm (nominal)		
1.2	Balloons should be individually packed Sealed bags.		
1.3	Factory test data on the quality of the balloons as well as on the attainable ascent height vs payload graphs/table for the type of Meteorological balloons offered should be supplied.		
1.4	The balloons and the other required accessories shall have a warranty for a period of 15 months from the date of acceptance. Within this period, balloons and the other required accessories found defective before sounding(ascent) should be replaced at no cost to Malaysian Meteorological Department.		

1.5	Two balloons must be submitted together with the tender offer for technical evaluation.		
1.6	Successful company should supply one (1) set of balloon adaptor complete with other required accessories to each site and additional 2 sets as spares to be delivered to MMD Headquarter.		

No.	Item	Compliance Yes or No	Comments/Remarks
2.0	30 gm PILOT BALLOON		
2.1	Technical Specification		
a.	Material - Natural rubber		
b.	Weight - 30 gm ± 1 gm		
c.	Colour - Red		
d.	Bursting altitude – 9 km (minimum)		
e.	Operation Data - Payload : 10 gm - Free Lift : 80 gm - Ascent rate : 2.5 m/sec		
f.	Height performance- Balloons supplied Should exceed the minimum bursting Altitude during daylight ascent under Clear sky.		
g.	Neck Diameter- 1.4 cm(nominal)		
h.	Neck Length – 8.0cm (nominal)		
2.2	Balloons must be individually packed sealed bags.		
2.3	Factory test data on the quality of the balloons as well as on the attainable ascent height vs payload graphs/table for the type of Meteorological balloons offered should be supplied.		
2.4	The balloons and the other required accessories shall have a warranty for a period of 15 months from the date of acceptance. Within this period, balloons and the other required accessories found defective before		

	sounding(ascent) should be replaced at no cost to Malaysian Meteorological Department.		
2.5	Two balloons must be submitted together with the tender offer for technical evaluation.		
2.6	Successful company should supply one (1) set of balloon adaptor complete with other required accessories to each site and additional 2 sets as spares to be delivered to MMD Headquarter.		
3.0	BROCHURE AND TECHNICAL DETAILS You must be submitted with original Brochure and other related technical Details for all items proposed.		

ATTACHMENT 2

TENDER FOR THE "SUPPLY AND DELIVERY OF 600 gm METEOROLOGICAL HIGH
SOUNDING BALLOON AND 30 gm PILOT BALLOON"
TENDER NO: JMM (S).PPP02/806/01/08 06
OUR REF : DT/TN 0012

PRICE LISTING TABLE

No.		Item	Quantity	Unit Price (RM) (FOB or Net)	Total Price (RM) (FOB or Net)
1	a	600 gm Meteorological High Sounding Balloon	6,200 units		
	b	600 gm Meteorological High Sounding Balloon adaptor complete with other required accessories	10 sets		
2	a	30 gm Pilot Balloon	6,600 units		
	b	30 gm Pilot Balloon Adaptor complete with other required accessories	11 sets		
		GRAND TOTAL			

INFORMATION OF IMPORT GOOD

- 1. Name of Departmen : _____
- 2. Name of Product and Description : _____
- 3. Packaging form and total (pallet/crate/dram/carton/box/container)(FCL/LCL)

- 4. Product type : _____
- 5. Class IMO and UN No. : _____
- 6. Detailed on the number and product measure already packed follow delivery:-

6.1 600 gm Meteorological High Sounding Balloon (6,200 unit)

- 6.1.1 Total weight per unit : _____
- 6.1.2 Total "Dimension"(total) (m³) : _____
- 6.1.3 (W x D x H) (cm./in)*per unit size : _____

6.2 30 gm Pilot Balloon (6,600 unit)

- 6.1.1 Total weight per unit : _____
- 6.1.2 Total "Dimension"(total) (m³) : _____
- 6.1.3 (W x D x H) (cm./in)*per unit size : _____

- 7. Delivery number and delivery date :
 - i) _____
 - ii) _____

8. Supplier Information

i) Supplier name / agent :

ii) Address :

iii) Officer responsible :

iv) No.Tel / Fax :

9. Procedure Purchasing : (Ex-worker/FOB/FCA or others)*

10. Port / Airport :

Appendix D

Particular Regarding the Port Of Loading and Country of Origin , Validity of Price Offer, Warranty and Date of Delivery

**TENDER FOR THE
“SUPPLY AND DELIVERY OF 600 GM METEOROLOGICAL HIGH SOUNDING
BALLOON AND 30 GM PILOT BALLOON”**

TENDER NO: JMM (S).PPP02/806/01/08 06

OUR REF : DT/TN 0012

(This form is to be fully completed by the supplier)

1	Country / Countries of Origin of Equipment :	
2	Port of Loading :	
3	Warranty Period :	
4	Validity of Price Offer :	
5	Period of Delivery (FOB) : (In Weeks)	
6	Period of Delivery For Local Supply : (In Weeks)	