MAHASRI PROJECT IN MID-CENTRAL REGIONAL VIET NAM

THE INITIAL RESULTS AND PETITIONS

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INTRODUCTION

- Within the Mahasri project on studying cooperation Asian Monsoon in The central of Vietnam, the Japanese and Vietnamese Experts had installed the automatical observation system, including 31 rain gauge stations, 01 water level station and 01 automatical weather station(AWS).

- Up to now, the executing and operating of observation system had been achieved some results that serving for the study of the experts both countries.
- However, due to some objective reasons, the executing and exploiting the data had some determined difficulties. Hereafter, we, the staff directly installing, monitoring the observation system, had some comments and petitions so that the system can operate effectively

2. **The equipment installing and collecting data:**

- The automatical rain gauge system had been installed at 31 stations, in there, 10 stations that were connected to internet can transmit directly data to the host computer.
- However, the transmitting line of these stations was not stable. The remaining stations, we got data directly at the stations.

- The equipment that were used for observation system had been changed a lots in order to be suitable for the usage; the equipments had been used such as: Kadec, RF3, HOBO and Blue box.

- Up to now, the Japanese has replaced gradually by HOBO and Blue Box. In face, using all equipments above can get the data exactly but exploiting is different, some equipments are very durable and use few power but they can not connect to internet and transmit data like HOBO,

2.2/ Exploiting and transmiting data:

- At present, technician or expert had to get the data at station. It took a lots time and cost for getting data.
- To the automatic observation system, the best thing is transmission data directly to the host. Like this, the updated data will serve for many aims such as forecast, study specially the monitoring operation of system is most effective and it can help us to discover the broken down equipments so that the data can not be lost or interrupted.

2.3/Some results:

Order	Name of station	Province	Type of equipment	Connecting to internet	condition
1	Ba Tơ	Quảng Ngãi	HOBO		
2	Đức Phổ	Quảng Ngãi	HOBO		
3	Minh Long	Quảng Ngãi	HOBO		
4	An Chỉ	Quảng Ngãi	HOBO		
5	Sơn Giang	Quảng Ngãi	HOBO		
6	Sơn Hà	Quảng Ngãi	HOBO		
7	Quảng Ngãi	Quảng Ngãi	Blue box	X	
8	đảo Lý Sơn	Quảng Ngãi	HOBO		

9	Phú Ninh	Quang Nam	HOBO		
10	Trà My	Quang Nam	Blue box	X	
11	Tiên Phước	Quang Nam	HOBO		
12	Tam Kỳ	Quang Nam	Blue box	X	
13	Khâm Đức	Quang Nam	HOBO		
14	Hiệp Đức	Quang Nam	Blue box	X	
5	Nông Sơn	Quang Nam	HOBO		
16	Giao Thuỷ	Quang Nam	HOBO		
17	Câu Lâu	Quang Nam	Blue box	X	
18	Hiên	Quang Nam	Blue box	X	

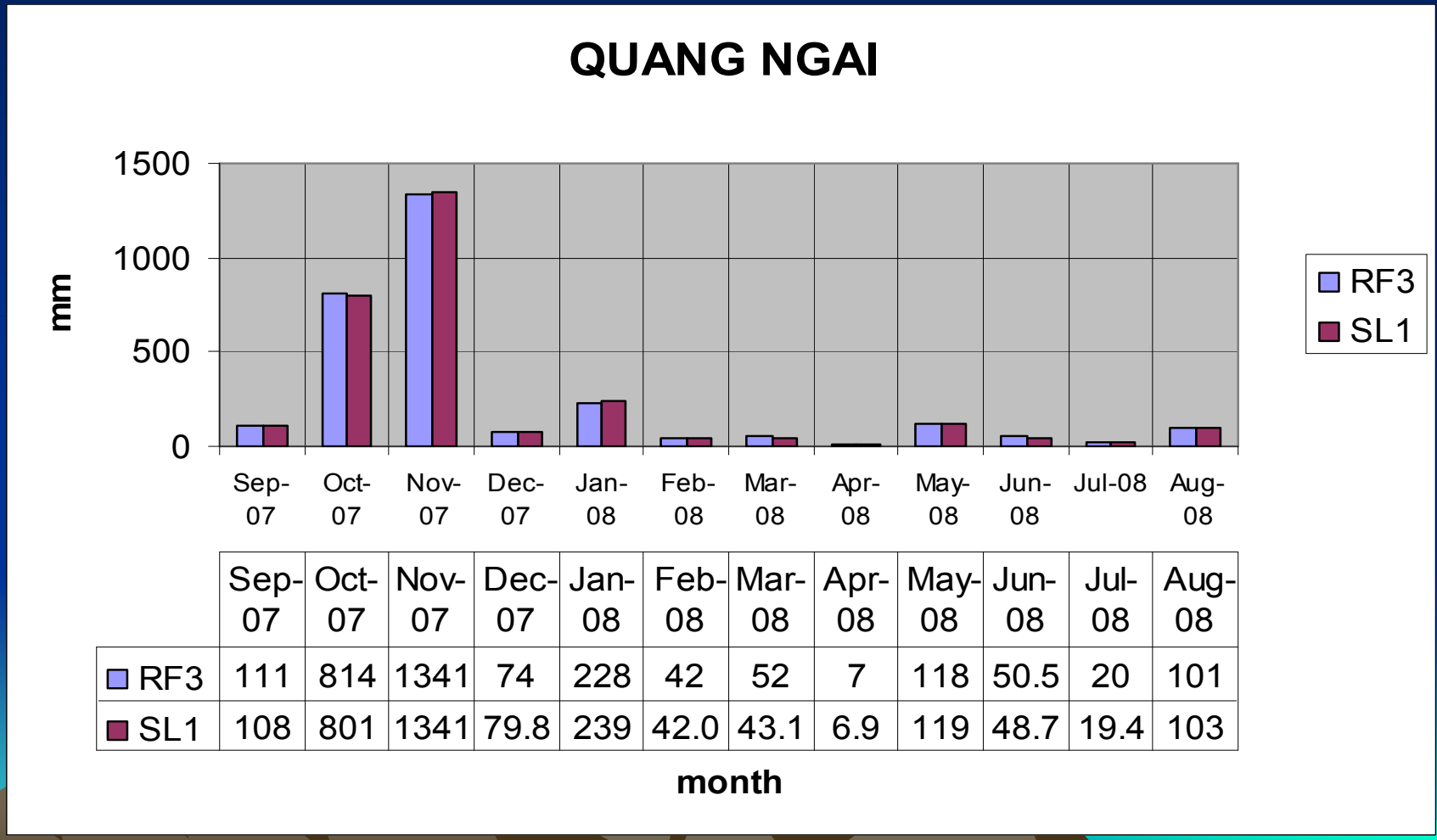
19	Thành Mỹ	Quang Nam	Blue box	X	
20	Hội Khách	Quang Nam	HOBO		
21	Ái Nghĩa	Quang Nam	Blue box	X	
22	đảoCù lao Chàm	Quảng nam	HOBO		
23	Hoà Bắc	Đà Nẵng	HOBO		
24	Cẩm Lệ	Đà ả ẵng	HOBO		
25	A lưới	Đà ả ẵng	Blue box	X	
26	Bà ả à	Đà ả ẵng	HOBO		
27	Đà ả ẵng	Đà ả ẵng	AWS		

28	Bình Điền	TTHuế	HOBO		
29	Thượng ả hật	TTHuế	Blue box	X	
30	Phú Ốc	TTHuế	HOBO		
31	Tà Lương	TTHuế	HOBO		
32	Bạch Mã	TTHuế	HOBO		

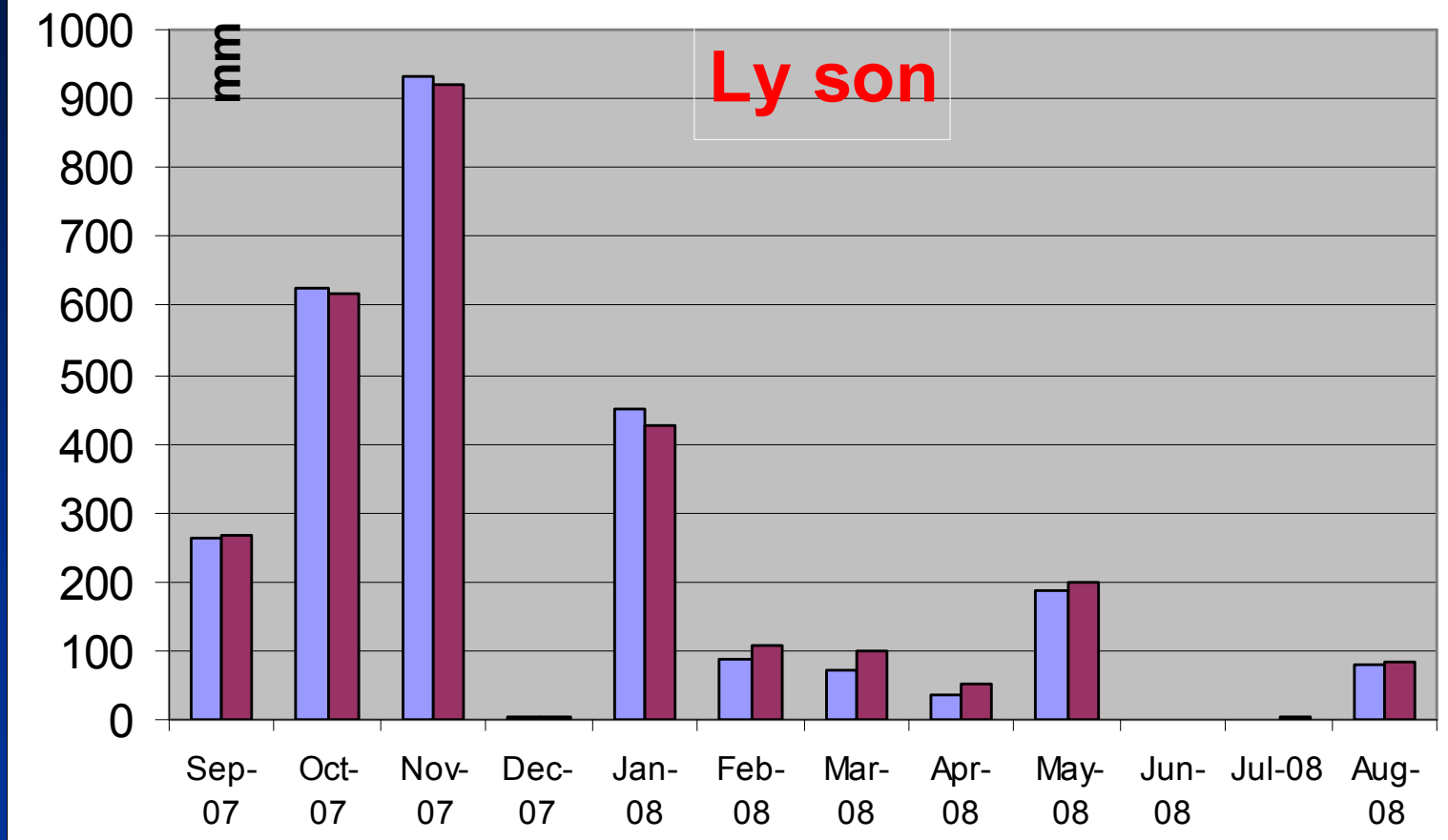
The map of the station network of Mahasri project in Central of Vietnam

- In the data aspect, we had carried out comparing, evaluating real survey data at stations by the normal self – recording equipment. The result as follows: the data is equivalent.
- It naturally has the differences due to the odd of self-recording equipment is bigger and the resolution of two equipments are also different (0.1 for self-recording equipment and 0.5 for automatic equipment).

COMPARE RAINFALL DATA BY AUTOMATICAL RAINGAU RF3 AND RAINFALL DATA BY SL1

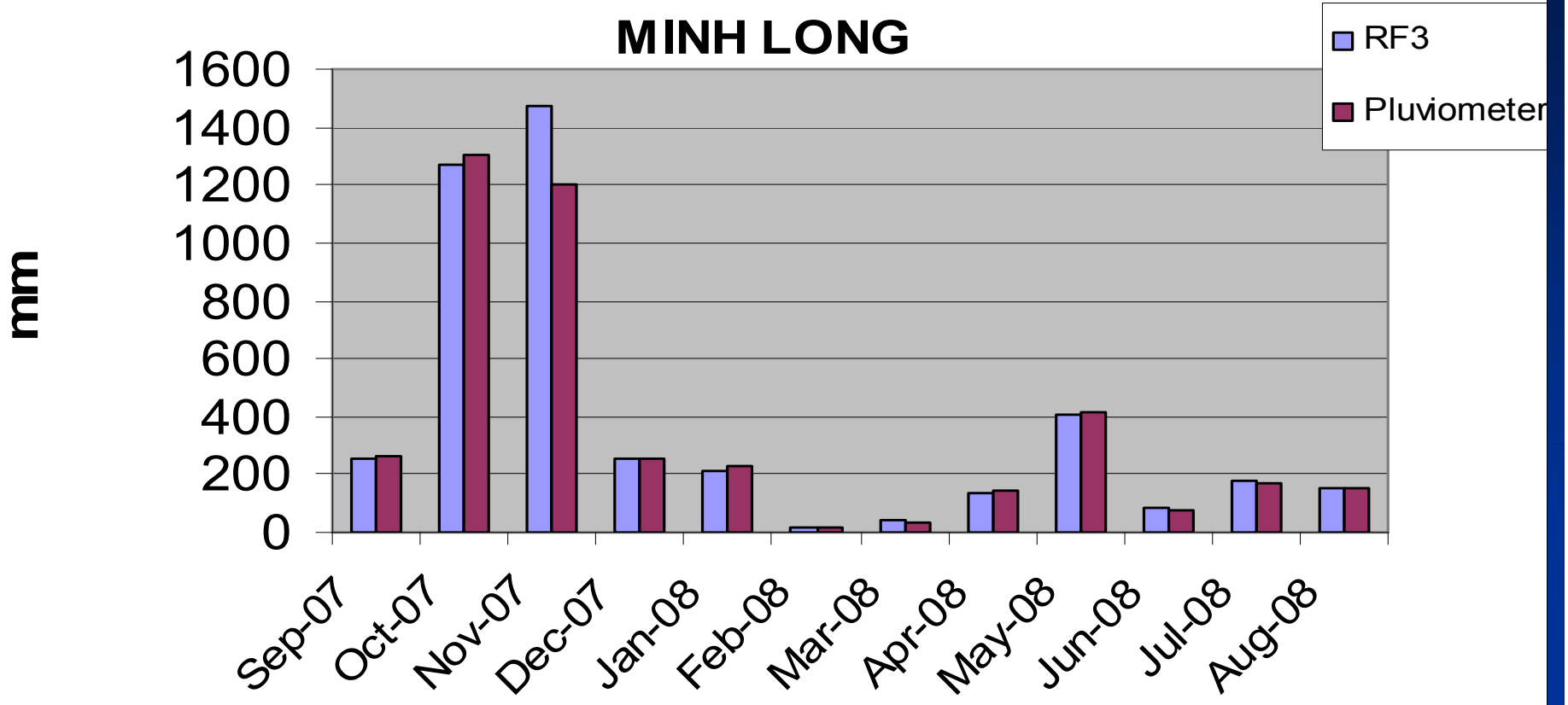


	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08
RF3	111	814	1341	74	228	42	52	7	118	50.5	20	101
SL1	108	801	1341	79.8	239	42.0	43.1	6.9	119	48.7	19.4	103



	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08
RF3	265	627	932	3	449	88	70.5	36.5	188	0.5	0	81
SL1	266	619	920	4.3	428	109	97.7	51.6	201	0.1	3.3	84.1

COMPARE RAINFALL DATA BY AUTOMATICAL RAINGAU RF3 AND RAINFALL DATA BY PLUVIOMETER



	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08
RF3	257	1267	1469	250	215	16.5	39	140	404	81	174	152
Pluviometer	263.0	1304.	1203.	254.0	224.5	17.5	32.5	140.0	416.0	75.5	173.5	156.5

Some petitions:

- To achieve the most effective from the exploiting and the data can be used for many aims, we have some petitions as follows:
- 1. The project should choose the equipment that can transmit the data stably and is convenient for exploiting and using. HoBo is the equipment that is used most now but they can not transmit the data.The Blue Box should also be monitored and repaired the weak points: the transmission data is unstable.

- 2. Connecting to internet for all automatic stations and transmitting the data to the host in Danang in order to exploit, serve for forecasting and monitoring the operation of system. (Now, they transmitted to Aero-Meteorological Observatory)
- 3. In the past time, Japanese experts had guided for our technician about technical installation, the usage of equipment but the time is too short. Therefore, the training should be a lot of time and have enough documents. On the other hand, in Vietnam, we should have assign tasks in specific between Aero-Meteorological Observatory and Mid Central Vietnam Regional Hydro-meteorological Center so that we can monitor and maintain the system better and help the system operating better and continuously.

- 4. At present, water level equipment has only carried out at one station among six stations intended installing according to the initial plan, we offered project to carry out installing at the remain stations in the dry season of the year 2009.

the Japanese Experts (Mr. Kamimera) had installed the automatic observation on the top of Bach Ma mountain (Thừa Thiên Hue)


Thank you

Bach Ma


LITHIUM
LITHIUM

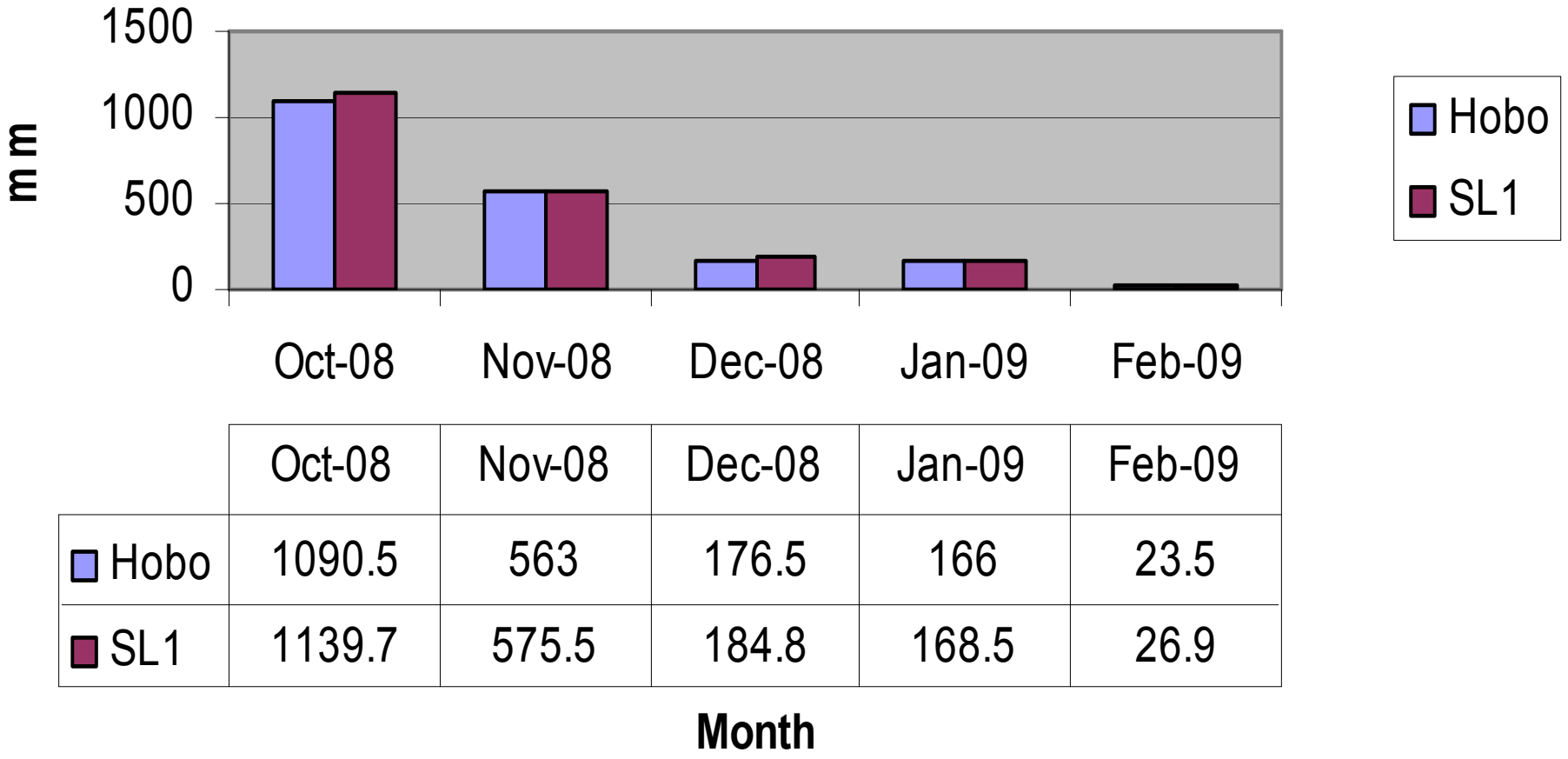
Blue box


AWS


Rainfall Observer RF-3
アメンボ
+
入力
−
▲1.0
▼0.5 mm
TAND D
選択
ブザーＯＦＦ／設定

Blue box

Cam Le



	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09
Hobo	1090.5	563	176.5	166	23.5
SL1	1139.7	575.5	184.8	168.5	26.9

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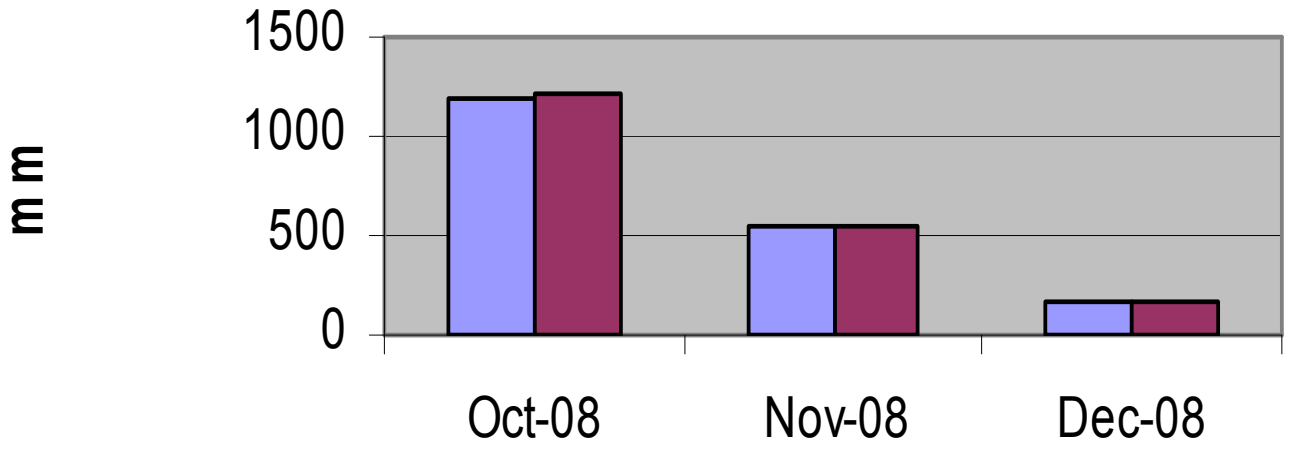
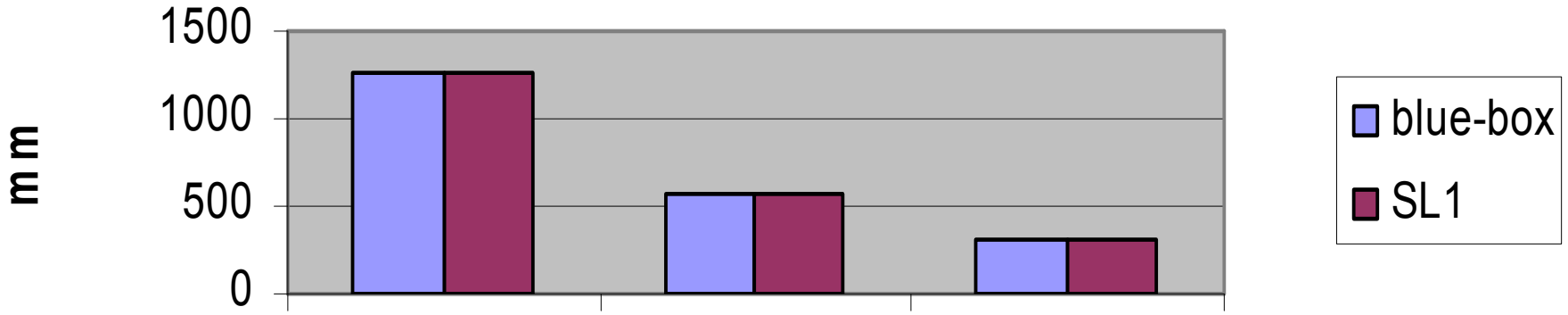


	Oct-08	Nov-08	Dec-08
blue-box	1197	547	168
Pluviometer	1223.8	548.5	160.7

Month

ALUOI



	Oct-08	Nov-08	Dec-08
blue-box	1262.5	564.5	305.5
SL1	1265.1	580.3	305.2

Month