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Attachment(s):

(1) "Report for AWESOME in Vietnam (NEW)", 3 MB pdf, 14 pages.

 : Re:
 : AWESOME Installation in Vietnam
 :

Dear ISWI Participant:

What is the AWESOME Project? ... from the ISWI website:

+++++
 Atmospheric Weather Education System for Observation and Modeling of Effects
 (AWESOME) and SID (Sudden Ionospheric Disturbance Monitor)

: Lead Scientists: Dr. Umran S. Inan, Dr. Morris Cohen
 : and Dr. Deborah Scherrer (Stanford) United States

Objectives: Lightning, sprites, Elves, relation to terrestrial Gamma Ray
 flashes , whistler induced electron precipitation, conjugate studies.

+++++
 Anyway, I am most pleased to attach for your perusal the attached
 Photo Report from Prof. Hoang Thai Lan.
 She is with:

: Dept. Atmosphere & Space Physics
 : Ho Chi Minh City Institute of Physics
 : 01 Mac Dinh Chi Str., 1st Dist.
 : Ho Chi Minh City, Vietnam
 : Phone: +84 8 38 298149
 : Mobile: +84 903 735674

She has attended one (IHY Korea) or more IHY/ISWI workshops.

If you have an ISWI instrument array, please send to me your report for newsletter circulation.

Forever Faithfully Yours,

: George Maeda
 : The Editor
 : ISWI Newsletter

A NEW AWESOME VLF RECEIVER SET UP IN VIETNAM

Implementation of ISWI - AWESOME Project in Vietnam, a new VLF Receiver was setting up in Nha Trang.

Instrument Provider: STAR Laboratory of Stanford University.

Hosting Organization: VAST (with the participation of two research institutes: Ho Chi Minh City Institute of Physics and Nha Trang Institute of Technology Research and Application).

This is a Photo Report for the installation of the AWESOME VLF Receiver at Nha Trang station (12.20 N; 109.13 E).

The installation was executed by Vietnamese AWESOME Group led by Dr. Hoang Thai Lan and with instructions remotely from Dr. Morris Cohen (leader of AWESOME Stanford Team).



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Nha Trang is a coastal City



The International Airport Cam Ranh, Nha Trang



A street going to the Nha Trang station



The highway from Airport to Nha Trang City



The street going to the station



A side of the station seen from the street

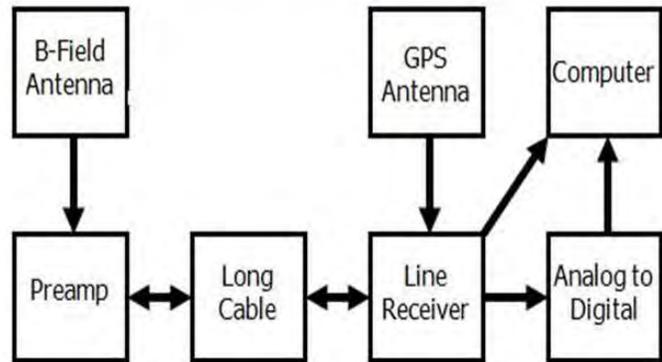


The Station



The building where the AWESOME is setting up

VLF data acquisition system:



There are 5 main components to a complete VLF Receiver:

- 1) VLF Antenna
- 2) GPS Antenna
- 3) Preamp box
- 4) Line receiver box
- 5) Computer and software.

The Antennas gather the necessary data for the recording. The Preamp Box and Line Receiver Box process the signals and pass them to the computer.



The VLF loop antenna



GPS antenna



Preamplifier box



Line receiver box



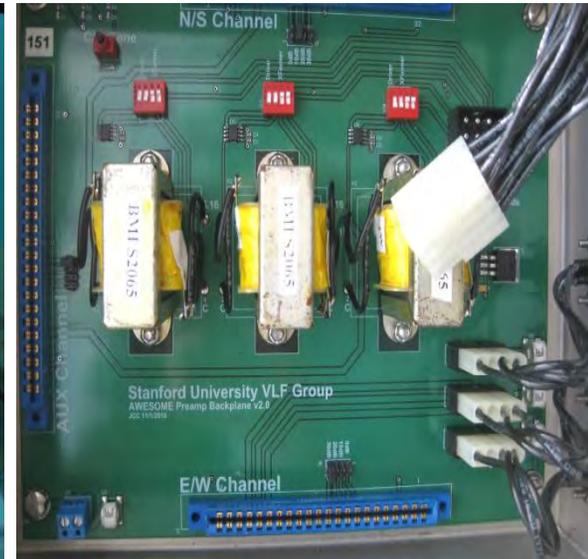
Computer



Checking the components before installation



The opened Preamplifier Box



The Mainboard of Preamplifier



The E/W and N/S channel cards



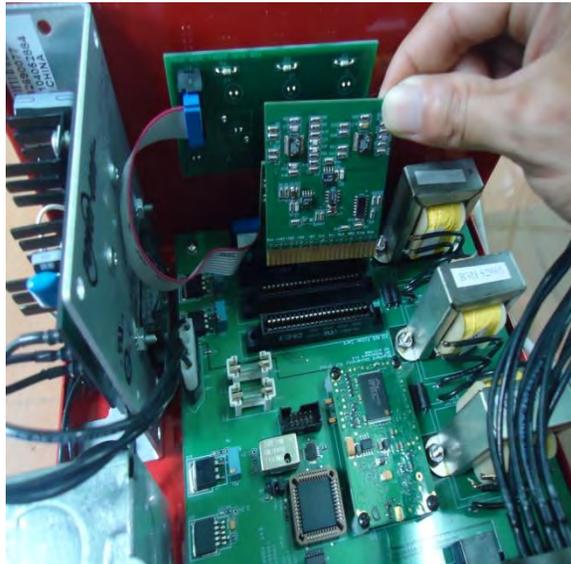
Testing signals of the Preamplifier



The Line Receiver



**The Mainboard and Cards
of the Line Receiver**



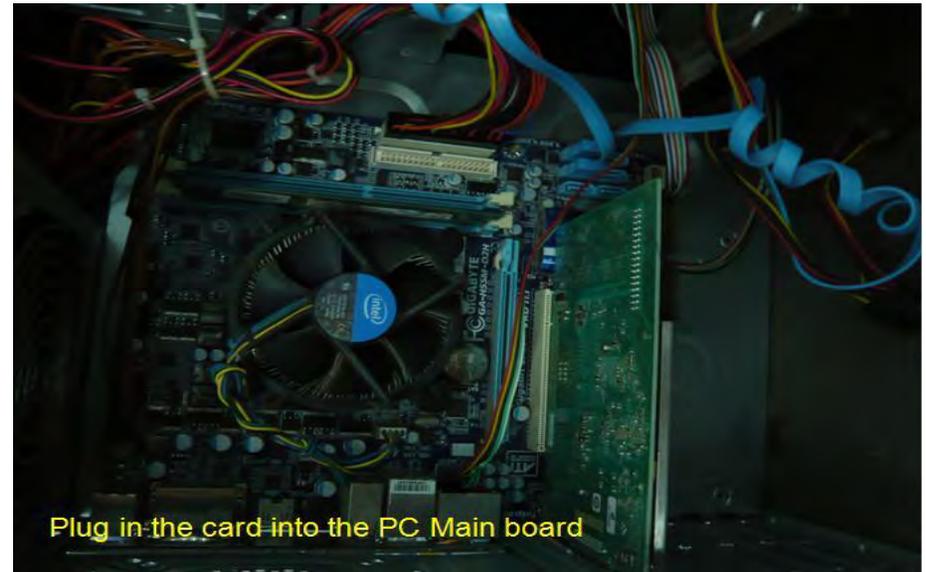
Plug in the cards into the Mainboard



Testing signal of the Line Receiver



The National Instruments PCI Card



Plug in the card into the PC Main board



Design and preparing for installation the VLF antenna



Select a location for the GPS antenna on the roof



Setting up the GPS antenna on the roof of the building



The GPS antenna is mounted



Assembly the VLF Antenna





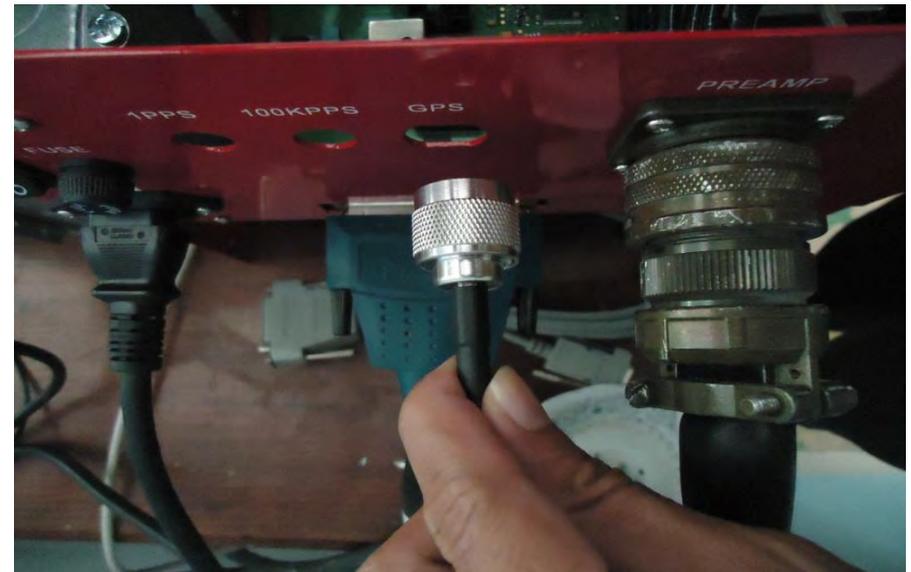
Mounting the Preamplifier Box to the VLF Antenna



Determine how to run the cables from outside to the room



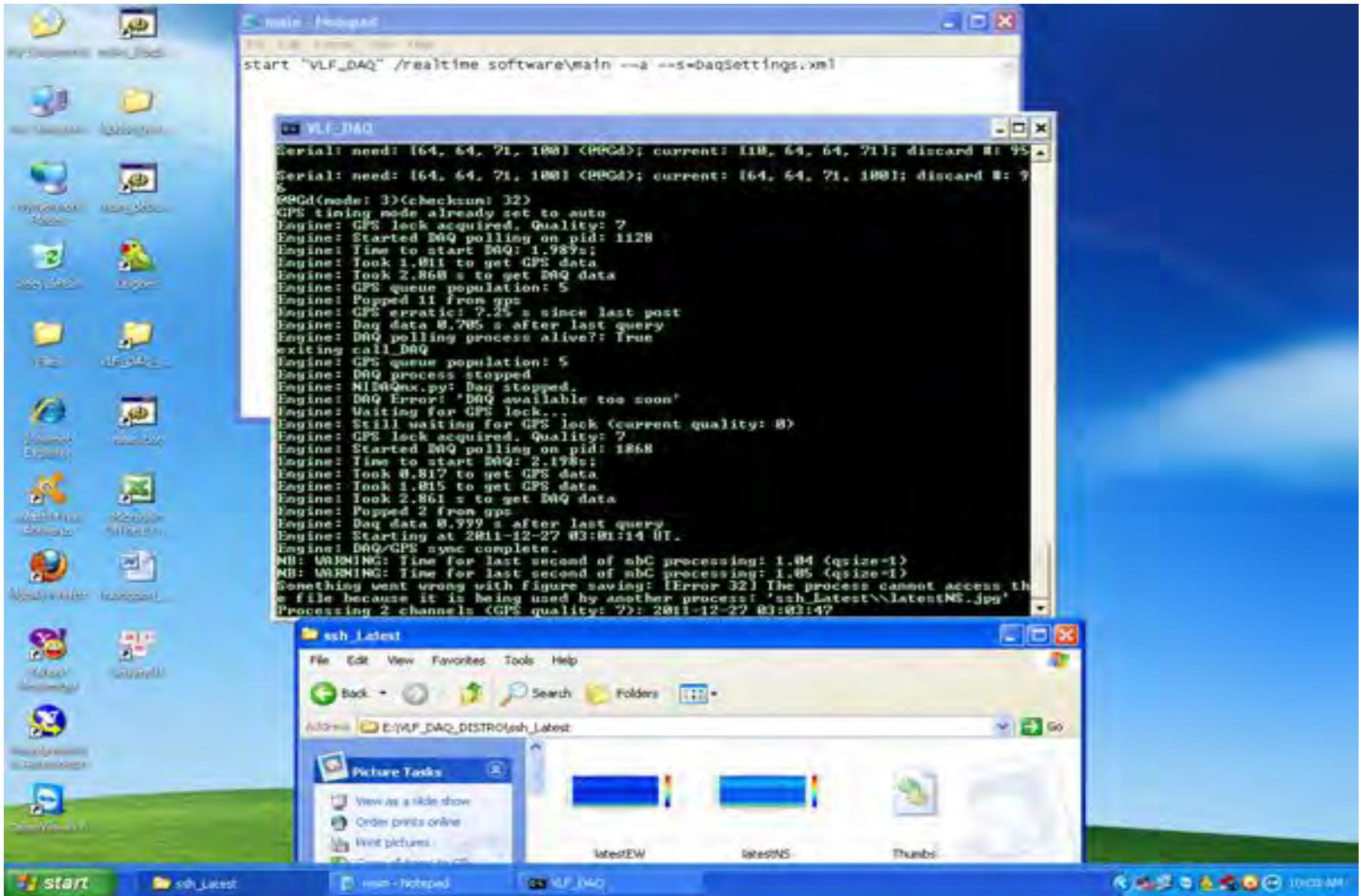
The GPS and VLF Antennas installed



Assembly the antennas cables



Assembly the VLF Receiver and Computer



Installing software



Checking the internet connection



Trying to find out why it appears flaky



Exchange ideas and discussing problems





The instrument started working from January, 2012



The resort located beside the station



Tea-time



A beach of Nha Trang



Vietnam AWESOME Team:

1. Dr. Hoang Thai Lan, leader.

5. MSc. Vinh Hao (Nha Trang Institute), responsible for AWESOME receiver in Nha Trang

2. Ms. Tien (Nha Trang Institute)

3. Ms. Tam (Ho Chi Minh Institute)

4. Mr. Vinh (Ho Chi Minh Institute)

6. Mr. Tue (Nha Trang Institute)

7. Mr. Thang (Nha Trang Institute)

8. Mr. Thao (Nha Trang Institute)

9. Mr. Tuat (Nha Trang Institute)

10. Dr. Vinh (Nha Trang Institute)



A class for Space Weather



Dr. Hoang Thai Lan, ISWI National Coordinator of Vietnam - leader of AWESOME Group

Vietnam AWESOME Team wants to thank Stanford AWESOME Team for all they did to make the VLF Receiver setting up in Vietnam successfully. Special thanks to Dr. Morris Cohen for doing so much to solve the problems in sending the instrument and during the time of installation it .

I also would like to express my sincere thanks to Prof. Hans Haubold for his very valuable supports in this cooperation.

Reported by Hoang Thai Lan