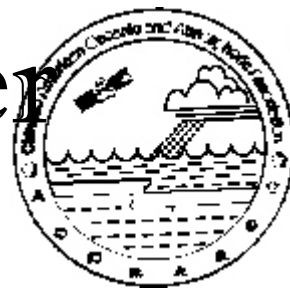


COAA Newsletter

美華海洋大氣學會



Chinese-American Oceanic and Atmospheric Association

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COAA newsletter welcomes feedback from members and friends, send your inputs to the editor at julian.wang@noaa.gov (301)713-0295x125

The President's Report

Dear COAA Members:

It is about the time for me to pass the Seal of COAA to the next president. I would like to express my sincere thanks to all of you for having allowed me to serve the association for nearly a year. For me, this year is a year of learning, a year of making new friends, and a year of sharing happiness. For COAA, it is a year of achievement, a year of growth, and a year full of laughs. Because of your contributions, COAA has undergone another very successful year. Here, I would share some important facts of COAA's achievements, which I classify into the following several groups: scientific activities, organization development, member services, and other activities.



Scientific Activities

Several members have expressed to me their appreciations of the strong scientific program this year. For this, I am thankful to our Program Directors Long Chiu and William Tseng for their diligent effort. I was so proud of the association when I saw that the auditorium of the Department of Meteorology at University of Maryland where our scientific workshops were held in March and July 2002 was heavily occupied.

During 21-23 August 2002, COAA cosponsored the Radio Occultation Science Workshop organized by the

Constellation Observing System for Meteorology, Ionosphere, and Climate (COSMIC) Project in Boulder, Colorado. I would like to congratulate the great success of the workshop. I would also like to thank Dr. Ying-Hwa Kuo, Director of the COSMIC Project and COAA's Regional Director, for initiating COAA's participation in the workshop and providing full support to two COAA representatives to attend the workshop (also see separate report in this newsletter).

Many of us may have observed from the COAA announcement or website that our soon-coming annual meeting this year (COAA 2002 Annual Meeting) will be full of colorful features associated with a new format. This excitement is attributed to the industrious effort of the meeting program committee members Ben Chao, Long Chiu, Jun Du, Xiaofeng Li, William Tseng, and Dongliang Yuan. The numerous helps from Yixiang (Eric) Nie of the George Mason University are also appreciated.

One of the major activities of our scientific program this year occurs in the effort devoted into the preparation of the 2003 international conference (see separated report and announcement in this newsletter for more details). Da-Lin Zhang and Quanan Zhang have worked very closely with many COAA members and with managers/scientists within China, especially those at the Chinese Academy of Sciences (CAS). They have overcome many difficulties and made significant progress in a number of important aspects including fund-raising and setting-up of the various committees. Besides many others such as Tony Liu and Frank Pao, I would like to thank Samuel Shen, Da-Lin Zhang, Quanan Zheng, and Yuejian Zhu who visited China as COAA delegation members in June 2002 to work on many details about this international

conference. I would also like to thank Jianping Li, Yifen Pu, and Huijun Wang of the CAS to work tirelessly on the many details of the organization of the conference.

Organization Development

We are glad to see many new faces in our association. One of the important features is that many of the new members this year are from university sectors, and from different regions outside the United States. The hard-work by Yuejian Zhu, our Membership Director, is appreciated.

This year, we have re-organized and expended the network of COAA Regional Directors. I am thankful to all the directors, now representing many countries of the world (see <http://www.coaaweb.org/regionaldir.html>), for their willingness to serve the association. I believe that they will make important contributions to the operations of COAA in the years to come.

If you are observing person, you may have noticed that our logo and pamphlet have been modified. Ben Chao and his wife, Su-Jing (Judy) Chao, have done an excellent job in designing the new patterns. They deserve appreciations from all of us!

Needless to say, sufficient funding is an important factor to run the association effectively. This year, Te-Jung Wang and Eddie Shih have worked tirelessly to ensure a significant increase in contributions from the Combined Federal Campaign, which is a primary financial source of our association.

COAA has received more and more recognitions worldwide. Currently, we are under the process of establishing sister associations between COAA and the Chinese Society of Oceanography.

Member Services and Other Activities

During this year, we have gone through a great length to provide services to our members. Because of constant effort by Wilbur Chen, information of the COAA website has been updated frequently. Many times, you may have heard from Julian Wang and Eueng-nan Yeh about COAA news, announcements, and various activity items. Now, our members' personal webpages can be linked to the COAA website. In addition, an Award Committee has been formed to recognize the

achievements of and contributions from our members. I would like to thank Shi-Keng Yang and Xiaofeng Li for their involvement in the related work.

Recently, Dr. Norden Huang, NASA Senior Fellow & Chief Scientist for Oceanography and Member of the National Academy of Engineering, and Prof. Qing-cun Zeng, Director of the International Center for Climate and Environment Sciences (of CAS) and Academician of the CAS, have been elected to the rank of COAA Honorary Member (see <http://www.coaaweb.org/honormembers.html> for a complete list). Both Dr. Huang, also COAA's former president, and Prof. Zeng will serve as the co-chairs of the Academic Committee of the 2003 International Conference on Ocean-Atmosphere Science (see the second announcement in this newsletter).

The Zheng He committee remains very active this year. I have often heard many activities and news exchanges about Zheng He within the COAA program and related projects. I would like to tanks Ben Chao, Jin Wu, and Ming-Yang Su for all their devotions.

In several occasions, COAA has officially or unofficially hosted activities for our guests including visiting COAA members and other delegations. COAA recognizes the importance of maintaining a close relationship within its members and with the worldwide scientific community. (See more news in this newsletter.)

Last Words

The most important thing that I have learned from my service this year is the importance of our members' involvement. Without this involvement, nothing can be done. For this, I am thankful to Joseph Huang, whom I observed has rarely missed any COAA activities during the past years, and to our former presidents, especially Bill Lau and Eddie Shih, who have constantly supported me with numerous advices.

I believe that this year has been a great year for all of you. I also believe that you will be treasured by a greater success next year under the new leadership. At the time that COAA is just about to turn to its tenth year, I would like to wish all of you the very best in the years to come.

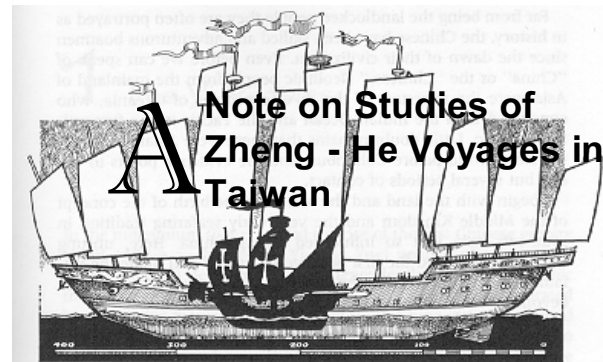
Activities of COAA Programs in 2001-2002

In addition to 2002 COAA Annual Meeting to be held on October 26, 2002, the most important activities of COAA Programs from October 2001 to now were holding scientific workshops twice at the University of Maryland, College Park, Maryland. The first scientific workshop was held on March 23, and the second on July 13, 2002. Eight outstanding members gave presentations in the first workshop and six in the second one, in addition to many reports and briefings on COAA's current activities, including the Status of COAA 2003 International Conference of which COAA is one of the sponsors, Cheng-Ho (Zheng-He) issue and trip reports to China and Taiwan. More than 40 members attended each workshop. The agendas of both workshops, summary of seminars, and photo galleries were posted on the COAA website at: www.coaaweb.org. Detailed viewgraphs for some presentations were also published on the COAA website.



The 2002 COAA Annual Meeting – Conference on Earth-Observing and Atmosphere-Land-Ocean Interaction - will be held on October 26, 2002 in George Meson University. The meeting will consist of invited talks, presentations, poster session, panel discussions and a banquet. The program committee consists of Long Chiu (Co-Chair), William Tseng (Co-Chair), Ben Chao, Jun Du, Dongling Yuan, and Xiaofeng Li. A conference web page that includes Welcome, Program, Registration, Call for Papers, Abstract Submission, and Logistics has been developed and linked by the COAA website. All members are urged to submit an abstract and

register early. Abstract deadline is September 29. For more information, please refer to the COAA website. (William Tseng & Long S. Chiu)



Zheng He's treasure ship (four hundred feet) and Columbus's St. Maria (eighty-five feet). (Illustration by Jan Adkins, 1993.)

By Dr. Ming-Yang Su, Visiting Professor
National Taiwan Ocean University

Department of Ocean Science, Keelung, Taiwan

During the past year and a half (from May, 2001 to October, 2002), considerable researches and related activities on Zheng - He voyages have been carried out in Taiwan and reported , in sufficient details, in the six issues of " Zheng - He Research and Activity Newsletter ", a bi-monthly, from 2001/6/20 to 2002/8/30. This Newsletter have been edited by Professors Shing-Shong Chen and Ming-Yang Su for the first four issues and by Ming-Yang Su alone thereafter. All the issues are available on the web sites : either <http://www.oce.ntou.edu.tw> or <http://www.nm.ncku.edu.tw/personal/cjh/cheng-ho> . All the comments and drafts of papers are to be submitted to the e-mail address : mysu@mail.ntou.edu.tw .

In addition, three magazines, published in China Mainland, also are important for anyone interested in Zheng-He voyages and listed below.

1. Zheng-He Research, in Nanjing
2. Marine History Research, in Shang-Hai
3. Maritime History Studies, in Quan-Zhou.

The current issue of (2) (2002, June) above is a special issue on Zheng-He voyages.

I have one article published in the current issue (2002,

June) of (1), two articles in the current issue (2002, June) of (2), and one article in the current issue (2002, June) of (3). Besides, one more article is published in the National Chi Nan University Journal, Vol. 6, No. I, March, 2002. (Taiwan). All five articles are concerned with various historical aspects of the treasure ships of Zheng-He fleets. Anyone interested in receiving Zerox copies of these articles please contact me by e-mail and give me your mailing address and telephone number.

Treasurer's Report

The financial situation of COAA continues to be sound. The combined total in our savings and checking is currently \$17,900 which is an increase of \$1,500 over the balance at the beginning of this year. Our two main steady sources of income are the contributions from the corporate sponsors and the Combined Federal Campaign (CFC). Our five corporate sponsors for 2002 are: TECRO / Science Division, Caelum Research Corporation, International Oceanic and Atmospheric R&D Foundation, Optical Scientific Inc., and Hsinchu Science Park Administration. We extend our deepest apologies to National Youth Commission for printing an unclear copy of their publicity page. We hope you will consider renewing your sponsorship in future years. We thank our corporate sponsors for their financial support. Their full address and a publicity page appear in our 2001/2002 Membership Directory. We appreciate equally the contributions from our CFC donors who chose to donate to COAA. Hsing-hua (Eddie) Shih continues his work on applying for and receiving the CFC contributions. We are happy to report that, after a down year in 2001, the CFC contributions for the current year surpass those of the year 2000. The current CFC contributors are, in alphabetical order: Alfred T Chang, Bill Chen, Hsi Cheng, Paul Hwang, Chen-Wen Jiang, Ronald Lai, William KM Lau, Yen Li, Antony A Liu, Tong Louie, Chi-Jiunn P Pan, Hsing H



Shih, Wei-Kuo Tao, Rita M Teng, William Y Tseng, James R Wang, Chung-Sheng Wu, Pingping Xie, Ryan R Yang, Song Yang, and Te Jou K Yeh. I assure both our corporate and CFC contributors that your precious dollars are indeed well spent by COAA. Your contributions enable and encourage our board members and other volunteers to contribute their efforts and talents in a variety of community and scientific projects aimed at furthering the purposes of COAA. The only expenses that they ask to be reimbursed are direct out-of-pocket expenses incurred in the performance of their volunteer work.

This marks the end of my two-year tenure as Treasurer. It was an educational experience, specially in the need for persistence in accomplishing my work as the Treasurer. Certainly, I gained more than I contributed through my humble efforts. Xiang ge wei bao gui du zhe gao ci, zhu wei lai qian qian ru yi. (Tejung Wang)

COAA News

New COAA Brochure (in color)

The old COAA Brochure has been redesigned and converted into color. It is available on the COAA website. (William Tseng)

New COAA Members

During past year, there are many new faces who have joined COAA, we would like to express our welcome and hope all of you to participate the activities of COAA in the future. The new members are Deliang Chen, Pubu Ciren, Buwen Dong, Guojun Gu, Jing Guo, Qi Hu, Zeng-Zhen Hu, Jianping Li, Zhanqing Li, Chunying Liu, Cheng-Hsuan Lyu, Zaitao Pan, Weihong Qian, Xueshun Shen, Chaojiao Sun, Bill Teng, Bin Wang, Chien Wang, Fuzhong Weng, Ming Wei, Shaocheng Xie, Rongqian Yang, Peter M. K. Yau, Soo-Hyun Yoo, Jun Yu, Jiemin



Zhan, Fuqing Zhang, Zhongxiang Zhao, Shan Zou, Bryan Zhou and Yaping Zhou (Yuejian Zhu, Yuejian.Zhu@noaa.gov)

COAA co-sponsored a COSMIC scientific workshop in Boulder, Colorado, on August 21-23, 2002.

COSMIC (Constellation Observing System for Meteorology, Ionosphere and Climate), also known as ROCSAT-3, is a joint Taiwan-USA space mission. A constellation of six mini-satellite equipped with GPS (Global Positioning System) occultation receivers will be launched in late 2005 for a lifetime of 5 years. This system is expected to produce ~3,000 radio occultation soundings per day, distributed uniformly around the globe, from which atmospheric temperature and water vapor profiles can be derived. The proof of concept of the technique has been successfully conducted by NSF's GPS/Met space experiment in 1995; COSMIC is expected to be the next-generation, order-of-magnitude advancement. The data from COSMIC, which will be available in near real-time, will have a major impact on global weather prediction, climate analysis, and ionospheric research.

The workshop was organized by UCAR COSMIC Program Director Dr. Bill Kuo, who is also a regional director of COAA. Three days of intensive scientific discussions, participated by about 100 scientists many of whom traveled from NSPO and universities in Taiwan, led to a definition of four formal scientific teams: weather, climate, space weather, and space geodesy. COAA's current vice president Ben Chao (NASA Goddard) is the lead of the space geodesy science team, while Bill Kuo is also the lead of the weather science team. COAA's Program Director William Tseng (NOAA) was also invited to participate in the workshop as a special guest. (Ben Chao)

Chesapeake Bay Project

Dr. Hsing-hua (Eddie) Shih is leading a NOAA National Ocean Service partnership project on wave and current measurements in the Chesapeake Bay. Several NOAA offices and local state institution are participating in this effort to test new measurement technologies, improve wave nowcast/forecast model and oil spill trajectory analysis tools. The resulting information will also be

used to derive engineering and environmental guidelines for marsh restoration in the bay.

Ensemble Forecast in China

Suggested by NOAA Chinese ethnic scientist Dr. Jun Du, Beijing's NMC adopted the NCEP's breeding method in their regional model ensemble forecasting system. Invited by the Chinese National Meteorological Center (NMC), Dr. Jun Du of NCEP/NOAA visited the NMC in Beijing during June, 2002. During the trip, Dr. Du demonstrated some forecast results based on the NCEP's short-range ensemble forecasting (SREF) system (<http://www.emc.ncep.noaa.gov/mmb/SREF/SREF.html>) which is based on breeding method to generate initial perturbations. However, the existing NMC's regional model ensemble system was using singular vector method to create initial perturbations. After he was told that the results from that existing NMC's ensemble system were not satisfactory due to too small ensemble spread, Dr. Du convinced Chinese scientists that they should switch singular vector method to breeding method. With the help of Dr. Du, the Chinese NMC has adopted breeding method in their regional model ensemble system now.

Awards

At the PORSEC (Pan Oceans Remote Sensing Conference) 2002 at Bali, Indonesia. Two scientific awards were given at the PORSEC closing ceremony, and both winners are COAA member: Tony Liu (NASA/GSFC) and W. Timothy Liu (NASA/JPL). (Wendy Tang, 818-354-8199)



Gulf Stream Study

Journal Nature highlights a new Finding on the Gulf Stream North Wall Breaching by Dr. Xiaofeng Li and other COAA Members: – The journal Nature has published an article on its August 29, 2002 issue (Nature 418, 928 (2002); doi:10.1038/418928b) highlighting a recently published NOAA/NESDIS Office of Research & Applications paper on an unusual satellite observation of the breaching of the Gulf Stream by an outflow of colder shelf water. The

original paper, entitled "An extraordinary breach of the Gulf Stream north wall by a cold water intrusion" by Xiaofeng Li (COAA member), T. Donato, Q. Zheng (COAA member), W. Pichel, and P. Clemente-Colón (COAA member), was published in the *Geophysical Research Letters* journal (*Geophys. Res. Lett.*, 29, 10.1029/2002GL015378; 2002). The penetration of cold shelf water across the Gulf Stream warm waters was documented on a series of AVHRR sea surface temperature (SST) images acquired between October 2 and October 5, 2001. Such a striking breach event has never been reported in the literature. Analysis of wind data from a nearby weather station reveals a high speed (over 12.8 m/s) and persistent (3 days) alongshore wind event occurring prior to the breach. An 11-year time series (1991–2001) of local wind measurements show that these wind conditions on to be uncommon, which may explain why the large-scale surface shelf water breach of the Gulf Stream has not been previously observed. Dr. Li is working at NOAA/NESDIS and has been a COAA member for many years. If you are interested in this study, please refer to papers indicated above or contact him via e-mail at Xiaofeng.Li@noaa.gov. (William Tseng)

COAA Members Participated in U.S.-China Joint Working Group Meeting

A number of COAA members participated in the Thirteenth Session of the U.S.-P.R.C. Joint Working Group on Cooperation in the Field of Atmospheric Science & Technology, which was held in Silver Spring, Maryland, during 25-26 March 2002. They included Ming Ji, Zhanqing Li, Julian Wang, Fuzhong Weng, Song Yang, and Da-Lin Zhang. The Chinese delegation, headed by the Administrator of the China Meteorological Administration (CMA), Dr. Dahe Qin, consists of 10 members from the CMA, the Chinese Academy of Sciences, and the Natural Science Foundation of China. Several COAA members attended the entire discussions between the Chinese delegation and the U.S. delegation headed by Gen. John J. Kelly, Jr. (Ret.), the Assistant Administrator of NOAA for weather service. On the 25th, Dr. William Tseng was invited as a COAA representative to participate in the reception for the delegations hosted by the American Meteorological Society. (Song Yang)

Promotions

Dr. Simon Chang has been promoted to the position of the Superintendent, Marine Meteorology Division, Naval Research Laboratory, Monterey, CA. The Marine Meteorology Division is within the NRL Ocean and Atmosphere Science and Technology Directorate. The major mission of the Division is to conduct basic research in atmospheric and related sciences, develop environmental analysis and prediction systems to support Navy operations, and evaluate atmospheric effects on weapons systems performance. The Division is collocated with Navy Fleet Numerical Meteorology and Oceanography Command, and Naval Postgraduate School for close collaboration and support. The division has approximately 65 federal employees and 35 visiting scientists, postdocs, and contractors.



Dr. William K.-M. Lau has been selected as the Chief of the Laboratory for Atmospheres, NASA Goddard Space Flight Center. The Laboratory is one of the five divisions within the Goddard Earth Sciences Directorate. It has five Branches focusing on the areas of cloud, aerosol, and radiation; atmospheric hydrological processes; atmospheric ozone and trace gases; climate variability; and mesoscale processes. The work of the Laboratory involves four primary activities: measurements, data sets, data analysis, and modeling. The Laboratory staff consists of just over 100 civil servants, a roughly equal number of visiting scientists, and over 220 non-civil-service specialists supporting the various projects and research throughout the Laboratory. (Ming-Dah Chou)

