Chinese-American Oceanic and Atmospheric Association

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About the COAA

COAA is a member-led, all inclusive, non-profit, professional association supporting its members and promoting excellence in oceanic and atmospheric sciences and related activities. Members have many opportunities to share information, news, studies and concerns related to the fields of oceanic and atmospheric sciences through board work, submitting correspondence or articles to the COAA Newsletter, leading workshops and making presentations at the Annual Meetings, making contributions to the COAA website, and networking with people in a wide variety of careers (from well-known senior professionals to young environmental enthusiasts).

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1. Professor Rong-Hui Huang (黄荣辉院士) visits COAA

April 2012 - On April 14th, 2012, Prof. Ronghui Huang of Institute of Atmospheric Physics visited COAA. Prof. Huang is an academician of the Chinese Academy of Sciences. He is one of the top scientists in research areas of theory of atmospheric circulation, short-term climatic dynamics and tropical air-sea interaction. He serves as the general secretary of the national climate research committee. He is also a winner of the He Liang and He Li Science and Technology Advancing Award, one of the highest honors for a Chinese scientist. During the visit, Prof. Huang gave a lecture on East Asian Monsoon System (see details next) in the COAA Distinguished Scholar Symposium. He also became an Honorary Member of COAA. (News provided by Dr. Tianle Yuan.)

2. COAA Distinguished Scholar Symposium 2012

April 2012 - The COAA 2012 Distinguished Scholar Symposium was held on April 14 2012 at the University of Maryland. Profs. Rong-Hui Huang and Zhanqing Li delivered two excellent lectures on latest advances at two frontiers of atmospheric science.

I. Prof. Huang gave an overview of the East Asian Monsoon System. The thesis of this talk is that climate in China is mainly influenced by the East Asian monsoon (EAM) system. The significant interannual and interdecadal variabilities of the EAM system have an important impact on climate disasters in China. Especially since the 1980s, severe climate disasters over large areas have caused huge damage to agricultural and industrial productions in China. Thus, the characteristics and regularities of temporal and spatial variabilities of the EAM system may be important for the seasonal prediction of summer rainfall in China and are also important research issue for Chinese meteorologists. During the talk, Prof. Huang summarizes the advances in recent studies on the characteristics and variabilities of the EAM system. The results are mainly as follows:

1. The EAM system is a relatively independent monsoon subsystem of the Asian-Australian monsoon system. Both its horizontal and vertical structure of wind fields and water vapor transports and the annual cycle of this system are different from those of the South Asian monsoon and the North Australian monsoon systems.

2. The East Asian Summer Monsoon system has significant temporal and spatial variabilities, i.e., it has obvious tripole and dipole patterns in spatial distribution and significant interannual and interdecadal variabilities in time. Especially, the interannual variability of this system exhibits an obvious quasi-biennial oscillation, i.e., the TBO, with a meridional tripole pattern in spatial distribution. And the interdecadal variability of this system appeared a significant characteristic of a meridional tripole pattern before the late 1990s, but it has become from a meridional tripole pattern to a meridional dipole pattern in spatial distribution from the late 1990s.

3. The East Asian Winter Monsoon system has also a significant interdecadal variability, which caused continuous warming winters from the late 1980s to the early 2010s and

recent cooling winters in East Asia. This may be relation to the interdecadal variation of quasi-stationary planetary waves propagation.

4. The EAM system variabilities are closely associated with coupling of atmosphere, ocean, and land processes and, hence, the system can be referred to as the EAM climate system, which includes various components of atmosphere, ocean and land surface processes that influence variability of the EAM system.

II. Prof. Li focused his attention at the microscopic scale and presented his latest findings regarding aerosol effects in the climate system. Prof. Li is an expert in climate change, radiation, aerosol-cloud interactions among many other areas. He is selected as one of the recipients of the 'One-Thousand-Talents Program', in addition to many other awards.

Prof. Li's lecture aims to answer some of the pressing questions regarding whether and how can environmental changes affect the climate and its changes in China. As the country of the densest population and fastest pace of economic development, China's environment and climate are undergoing fast changes. These changes are connected due to aerosol direct and indirect effects on energy and water cycles. Heavy loading of aerosols reduce the amount of solar radiation reaching ground, that could lower surface temperature, reduce ocean-land contrast, whereas solar energy absorbed by aerosols alters atmospheric stability to have a feedback effect on atmospheric dynamics. By altering cloud microphysics and macrophysics, aerosols can also change cloud properties and precipitation frequency and amount. All of these can influence regional weather and climate in a dramatically. To tackle the problem and unravel various complex relations, a series of field experiments were conducted in the region by a team of scientists from US and China. They include the East Asian Study of Tropospheric Aerosols: an International Regional Experiment (EAST-AIRe), the East Asian Study of Tropospheric Aerosols and Impact on Regional Climate (EAST-AIRc), and Atmospheric Radiation Measurements (ARM) Mobile Facility mission in China (AMF-China). During these experiments, extensive measurements were made of aerosol optical, physical and chemical properties and a suite of radiation quantities. By means of data analysis and modeling, they found significant effects of aerosols on temperature, precipitation, fog and atmospheric circulation, attesting the significant roles of atmospheric environment on the regional climate and its changes in China.

The Distinguished Scholar Symposium continued to attract large crowds mostly due to its high caliber speakers. At this year's event COAA is also pleased to give an Honorary Member to Dr. Jingli Yang.

Dr. Yang gave extensive support for COAA's activity and she shared her personal experience with the crowd. She started in the academic circle and was trained as an expert in land system science. Later she found opportunity and interest in delivering data service systems for major research centers such as NOAA and NASA. Now she is a well-respected small business owner and the CEO of Earth Resources Technology (ERT). On behalf of COAA, the past president Dr. Fuzhong Weng and current president Dr. Peter Wang presented the honor to Dr. Yang in recognition of her contribution to COAA. (News provided by Dr. Tianle Yuan.)

3. COAA Family Day and BBQ

September 2012 – A social event, COAA Family Day and BBQ took place on September 29 in Cabin John Regional Park, Bethesda, MD. It was a cool and sunny day in the early Fall. About 50 COAA members (from nearby federal agencies, universities, and companies) and their families attended this event. Everyone enjoyed plenty of delicious and authentic Chinese and American food prepared by COAA board members and general members.

(COAA board members, Dr. Haifeng Qian and others prepare food during BBQ.)

Many attendees, young or senior, had fun on meeting with new friends in a very relaxed atmosphere. The President, Kung-Hwa Wang, briefly greeted everybody and made announcement for several activities COAA is planning, including the upcoming AMS 2013 COAA reception and COAA 2013 Hong Kong Conference which is facilitated by Drs. Zhanqing Li (Univ. of Maryland) and Bill Lau (NASA/GSFC). The next day was the Middle Autumn Festival, attendees also shared joy on celebrating the traditional Chinese festival.

4. Announcement

COAA 2013 AMS Reception

After the great success of the COAA 2012 AMS Reception, COAA is very pleased to organize the COAA 2013 AMS Reception at the AMS Annual Meeting 2013 in Austin, to thank you very much for your kind and continuous support to COAA's development.

Time: 6:00 pm – 7:30 pm, January 8, 2013
Location: Meeting Room 404
Hilton Austin
500 East 4th Street
Austin, TX 78701

2013 COAA–CUHK International Ocean, Atmosphere and Climate Change Conference (2013 全球华人海洋，大气和气候变化大会)

COAA and Chinese University of Hong Kong (CUHK) will sponsor an international

conference in Hong Kong on **August 19–21, 2013.** It will take place in concurrence with COAA's 20 Years Anniversary and CUHK's 50 Years Anniversary. Detailed information will be announced shortly.

5. Obituaries

Professor Frederick Lin-Wu Tang

Professor Frederick Lin-Wu Tang is a great teacher, mentor, and pioneer in coastal engineering. He held a long, productive life and contributed greatly to his profession and his country. His legacy will be remembered for a long time.

He joined COAA in 1996 (three years after COAA was founded), and enthusiastically supported numerous COAA activities. Many of his students are members of COAA and served in various capacities, helped organize conferences and contributed to the growth of this professional organization.

Details of Professor's Tang's wonderful life are shown below. It is condensed from an official text release by the Memorial Service Committee at the National Chung-Kung University. Full text can be seen at: hhtp://www.ncku.edu.tw/ychong/grief/grief_main.htm

台灣海岸工程之父、成功大學退休教授 湯麟武博士於民國101年8月22日(星期三)下午7時13分仙逝於國立成功大學附設醫院，享嵩壽91歲。

湯教授生於江蘇武進，幼由父祖教讀經史，少入私立清波中學，及長考入省立杭州高中，後因抗戰失學在家。兩年後錄取庚款留日學生，考入東京工業大學預科，1945年畢業於日本九州帝國大學農業工學科。

1946年，因港灣工程專長，擔任政府來台接收之先遣，歷任基隆港務局設計課長、台中港工程處處長等職。委身公職期間，除於國家公共工程多有貢獻外，更殫精竭慮，不忘治學研究，以啟我國海岸工程學之濫觴。

1961年，湯教授舉家南居成大，一方面繼續投身於海岸工程之研究，另一方面春風化雨，為培育新一代研究人力而努力。至1986年退休，公正式投身教職凡二十六載，並於當年11月主辦第20屆國際海岸工程會議(ICCE)後移民出國。湯教授不僅是我國海岸港灣工程研究先驅，也是國際上第一代的海岸工程研究的知名學者，學術研究與工程實務均貢獻宏大，其著作「海岸工程規劃設計」、「港灣工程」、「波浪學綱要」等均為傳世之作，而其對於成大水工所之發展，更基礎深植，啟迪未來。

湯教授個性耿直，針貶時局、鑑才識德，以筆為刀，毫不苟且。嶙峋風骨，堪稱讀書人的風範，已故成大校長倪超曾讚曰：「夫麟武者，實際承中日兩國之精神者也」。晚年移居美國，將寓所名為蠱上九齋，著作不減，光「紛紜學」一著，便逾百萬言。更以譯代讀，醉心新知，老而彌堅。一生研究波浪，自問有所心得，而認為漂沙研究，毫無把握，故只能以清波為對象，濁浪就不懂了，一方面緬懷身世，一方面描述自己的學問，故自號「清波先生」。 2011年湯教授決定落葉歸根回台定居，當時已不良於行，身體亦日漸孱弱。湯教授著書立論之志，盡其畢生不遺餘力，窮理致知精神，典範夙昔永垂不朽。

Academician Shiyan Tao

Academician Tao has been a long-time member of COAA. He has served in the honorary committee for the 2004 International Chinese Ocean-Atmosphere Conference that was co-organized by COAA. Many of COAA members in the United States were his students and many have been

working closely with him in the same research and operational fields. Many of his students and colleagues still recall his support to young scientists in the field to encourage them to work hard and make contributions to the development of meteorology not only in China but also in the world. He will be greatly missed by all his friends, students, colleagues, peer scientists in the field.

Details about Academician Tao's wonderful life can be found in the website below:
http://www.cma.gov.cn/2011xzt/2012zhuant/20121219/index.html

中国科学院资深院士、中国科学院大气物理研究所研究员、原中国科学院大气物理研究所代所长、中国气象学会理事长、名誉理事长陶诗言先生因病医治无效，于2012年12月17日14时14分在北京逝世，享年95岁。

陶诗言1918年8月12日出生于浙江嘉兴，1942年毕业于中央大学地理系。陶诗言先生是我国著名气象学家，中国现代气象学的主要奠基人之一，为中国的气象事业做出了巨大贡献。陶诗言先生从事科学研究七十余载，把毕生精力献给了祖国的大气科学和气象事业，为我国现代天气预报业务的建立和"两弹"试验的气象预报保障做出了杰出贡献；他在我国天气学和卫星气象学的创立和发展方面取得了大量的系统性重要成就。他曾长期担任国内外学术组织的重要职务，获得过多项国家重要科学奖励，培育了大批大气科学和气象领域的杰出人才，在国内外同行中赢得了大师的美誉。

陶诗言先生乐观豁达、虚怀若谷、与人为善、淡泊名利、气节高尚，是一位品格高尚的著名科学家。年事已高的陶诗言先生在科学研究上卓有成就，但每天仍孜孜不倦地学习和研究，他的高尚品德、执着的科学精神，坚持"科研成果要为气象业务所用"的重视理论研究又注重天气实践的科学态度，是科研的最高境界，是我们学习的楷模。陶诗言先生用生命谱写了精彩的人生，为后人树立了光辉的榜样。他的逝世是中国科学界的一个重大损失。我们深切缅怀陶诗言先生，沉痛悼念陶诗言先生！陶诗言先生永垂不朽！

6. Call for contributions to COAA newsletter

Please let us know if you have exciting news to share with other COAA members, including awards, promotions, important publications, etc. We will post them on the COAA website and newsletter.

Please send your announcements to:
news@coaaweb.org

For current job listings, visit the COAA website:
http://www.coaaweb.org/career.php