

The Relationship Between the Location Change of the East Asian Subtropical Westerly Jet and Asian Summer Monsoon Onset

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Abstract: The relationship between the location change of the East Asian subtropical westerly jet (EASWJ) and Asian summer monsoon onset is investigated by using NCEP/NCAR pentad mean reanalysis data. The results show that the Asian monsoon onset is accompanied by the northward jump of the EASWJ axis and the westward movement of EASWJ center. When the EASWJ axis jumps northward to 35°N over the Tibetan plateau and the southern branch of the westerly disappears, the Asian monsoon circulation is established. In the early onset year of the South China Sea (SCS) monsoon, the tropical easterly advances northward early, reaches more northward latitude, and the mid-latitude westerly jet intensity is much weaker, whereas in the late onset year of the SCS monsoon, the situation is contrary. Meanwhile, the westerly jet core occurs early over the Tibetan plateau in the early SCS monsoon onset year, and the jet core over the western Pacific weakens rapidly, leading to early westward migration of the westerly jet center, while in the late SCS monsoon onset year the westerly jet core occurs late over the Tibetan plateau, and the jet core over the western Pacific weakens slowly, leading to late westward migration of the westerly jet center. In addition, the EASWJ location and intensity changes in the longitudinal direction are also associated with the beginning and ending of the plum rain in the Yangtze and Huaihe river valley.

Key words: East Asian subtropical westerly jet; Location and intensity changes of the westerly jet; Asian summer monsoon

全国数值预报发展与应用研讨会在武汉召开

2008年4月10~12日,全国数值预报发展与应用研讨会在湖北省武汉市召开。中国气象局副局长、中国气象学会数值预报专业委员会主任委员宇如聪,湖北省委常委、副省长汤涛出席会议。

宇如聪指出:“中国数值预报工作面临的挑战主要表现在数值模式各方面发展不平衡,资料管理应用等基础工作不到位,过于依赖国外数值模式产品和技术,难于满足突发事件对数值预报的需求等方面”。同时他强调:“要在资料整合、观测资料应用、模式物理过程的理解改进上下功夫,努力形成一个围绕数值模式评估而进行的观测、分析、提高认识、改进模式、完善观测的循环可持续发展的数值模式发展机制。中国气象学会数值预报专业委员会要努力搭建更多更好的交流与合作的平台,广泛团结国内各部门数值预报模式研发力量,共同推进中国数值模式发展,提升数值预报水平。”

本次研讨会由中国气象学会数值预报专业委员会主办,中国气象科学研究所和武汉暴雨研究所等单位承办。中国工程院院士李泽椿、中国气象局科技发展司司长郭亚曦、中国气象科学研究所所长张人禾和湖北省气象局局长崔讲学等专家和领导参加了会议。共收到来自全国气象行业200余篇论文,会议交流论文180多篇,评出优秀论文10篇(其中含暴雨所王晓芳1篇)。南京大学钱永甫教授、中科院大气物理研究所王斌研究员、国家气候中心吴统文研究员、中国气象科学研究所陈德辉研究员和沈学顺研究员分别作大会特邀报告。

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