# EDITORIAL

The Genesis of Atlantic Lows Experiment (GALE), was conducted from 15 January to 15 March 1986 over the eastern United States and adjacent ocean areas. Its scientific objectives centered on the prediction and physical understanding of the notorious East Coast winter storms, their heavy precipitation systems and their mesoscale structure. Among its specific tasks was the exploration of frontal developments, including the so-called "coastal fronts," and the study of the evolution of the land and marine boundary layer. The two-pronged approach of the project encompassed a composite observational program and the development and testing of numerical simulation and prediction models.

The operational phase of GALE consisted of a number of "Intensive Observing Periods" (IOPs), during which ad hoc developments were studied with all available observing systems. There was a total of 13 IOPs of which IOP-2 (from 23 to 29 January 1986) was the most interesting and widely studied cyclogenesis case. (For more details on GALE, see Dirks et al. 1988, *Bull. Amer. Meteor. Soc.*, **69,** 148–160; the GALE boundary layer program is described by Raman and Riordan 1988, *Bull. Amer. Meteor. Soc.*, **69,** 161–172; the GALE oceanographic program is described by Blanton et al. 1987, *Eos,* **68,** 1626–1627, 1636–1637.)

Parallel to GALE, the Canadian Atlantic Storms Program (CASP) was conducted over the Canadian Atlantic Provinces. It had similar scientific objectives, but emphasized, in addition, the oceanic response to intense atmospheric systems on the synoptic and mesoscale. CASP was able to follow the further development of several GALE storms. (For more details on CASP see Stewart et al. 1987, *Bull. Amer. Meteor.*, **68,** 338–345.)

In this issue some of the first scientific results of GALE and CASP are published (a special CASP issue of *Atmosphere-Ocean,* Volume 27, No. 1, was published in 1989). The 18 papers address most, but not all, core objectives. Half of the papers study the events of the previously mentioned GALE IOP-2 with emphasis on the interesting cyclogenetic and frontal developments, as well as the boundary layer processes during an intense cold-air outbreak. Two further papers study GALE IOP-9 (24–26 February 1986), a case of rapid offshore development. The third group of papers refers to the results from CASP. The fourth and final group of papers addresses some special subjects, such as, atmospheric electricity and chemistry studies, as well as a radar survey of the entire GALE period.

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Guest Editors