

Kang, Y., J.-H. Jeong, C.-H. You, and D.-I. Lee, 2018: Structure and evolution of a convective system with bow echo associated with terrain on Jeju Island, Korea. *J. Meteor. Soc. Japan*, **96**, <https://doi.org/10.2151/jmsj.2018-050>.

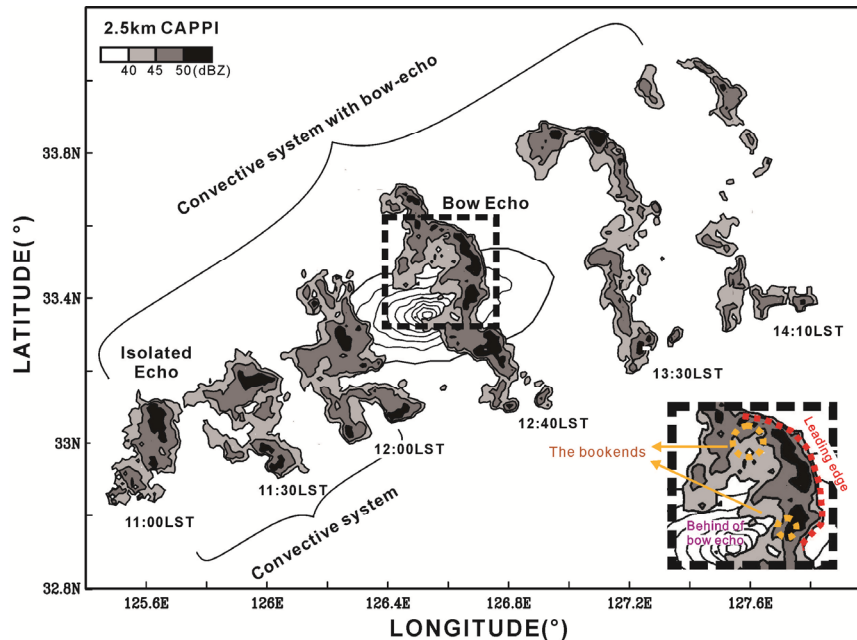


Figure 1. Time-sequential reflectivity fields at 2.5 km elevation from 11:00 LST to 14:10 LST on 13 July 2012. Solid contour lines show topography of Jeju Island (contour interval: 200 m). The dotted box at the bottom-right corner indicates bow echo.

- The structure and evolution of convective system with bow echo on Jeju Island (isolated bell-shaped terrain), were investigated using dual-Doppler radar and surface observations (Fig. 1).
- The isolated bell-shaped terrain had a major indirect influence on the evolution of a convective system with bow echo. The rear-inflow jet (RIJ) in the system passing over the center of Island can get to strength on the lee side and descend with relatively dry air along the surface behind the bow echo.
- The cold pool on the lee side of mountain was generated by evaporative cooling over surface drier environment. The development of an RIJ and cold pool contributed the evolution of the convective system with bow echo in the northeastern side of Jeju Island.