First QP Echo Imaging Results from Stanford California

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Five additional receivers have been added to the 24.5-MHz FAR3 radar in Stanford California, and, following Hysell, a maximum entropy imaging algorithm has been implemented. The radar operated for a few months this summer and made images of QP echo backscatter. The results will be presented and compared with QP echo images made by Hysell from the island of St. Croix, which have appeared in a number of publications (e.g. Larsen et al., 2007). There is an important difference in geometry between the two radars: the Stanford radar transmits to the northeast, whereas the St. Croix radar transmits to the northwest. It is attempted to explain some of the differences in the images obtained in terms of this geometry difference. In doing this we discuss the possible source of QP echoes in terms of the Es layer instability, and the Kelvin Helmholtz instability.

(Note: File corrected by Conference Officials)