

ATS/CIRA Colloquium

Professor Emeritus Wayne Schubert

From Colorado State University

**Bernhard Haurwitz Memorial Lecture (2017):
Potential Vorticity Aspects of Tropical Dynamics**

Hosted by Michael Bell

Friday, Nov. 10, 2017

ATS room 101

Discussion will begin at 11:15 a.m.

Refreshments will be served at 10:45 a.m. in the weather lab

Bernhard Haurwitz (1905-1986) was a member of our faculty for 13 years, teaching atmospheric dynamics and doing research on atmospheric tides. He was a pioneer in the study of tropical cyclone dynamics, writing papers on this subject before satellites, weather radars, and aircraft observations. He is also known for his analysis of "Rossby-Haurwitz waves."

After a review of some of Bernhard's contributions, the talk will focus on the potential vorticity aspects of tropical systems, especially tropical cyclones. We will try to understand how a tropical cyclone can become a hollow PV tower with values of PV exceeding 200 PV units. We will also discuss the role of the frictional boundary layer in establishing the eyewall and often a concentric eyewall, and also the role of barotropic instability in the breakdown of eyewall structures.

Link to colloquia page: <https://www.atmos.colostate.edu/colloquia/>