The extrapolation to zero volume of transformation occurs at 4.7 a/o Al. There might be some tendency to interpret this composition as the Pu-rich boundary of the delta phase region on the Pu-Al phase diagram. This conclusion is not justified, however, because these data were at high pressures and the effect of pressure on this phase boundary is unknown.

The compression curves of four Pu-Zn alloys containing between 1.7 and 5.0 a/o Zn are shown in Slide 5. Our Pu-Zn alloy compositions are nominal and may be high by as much as 1.5 a/o. All of these Pu-Zn alloys transformed under compression. Their microstructures after compression showed predominantly alpha phase with some untransformed delta and traces of beta phases. Also, $PuZn_2$ was seen in the microstructure of the 5 a/o Zn alloy after compression. The transformations occur at 950, 2520, 4210, 5290, and 6820 atms. in the alloys containing 1.7, 2.5, 3.4, 4.0, and 5.0 a/o Zn, respectively.

The transformation pressures and volumes of transformation of the Pu-Zn alloys is shown in Slide 6. Again, these are seen to vary linearly with zinc content over the range of experimental measurements and extrapolation to zero transformation pressure occurs at 1 a/o Zn.

Slide 7 shows compression curves of Pu-Ce alloys containing between 3, 4 and 6.0 a/o Ce. All of these alloys undergo double, irreversible transformations under compression. The first, lower-pressure transformations occur at 60 or less, 500, 1490, and 1840 atms. in alloys containing 3.4, 4.0, 5.0 and 6.0 a/o Ce, respectively. The second, higher-pressure transformations occur at 3000, 4300, 6470, and 8220 atms., respectively.