

**Requirements**

- First Free-Flight Bulk Chemical Shot June 6, 1961
- First Shot after "Soft-Launch" Upgrade March 1, 1964
- First Shot with Main Launch Tube
- First Counter-Fly Shot October 26, 1964
- First Shot with 203mm Diameter Launch Tube June 1, 1966
- First Shot with 400mm Diameter Launch Tube January 16, 1967

### AEDC Hyperballistic Ranges

Q Range Missiles vs. Velocity

Provides Unique Capability to Duplicate Real Flight Conditions at Sub-Scale for Development of Missile Defense and Hypersonic Systems

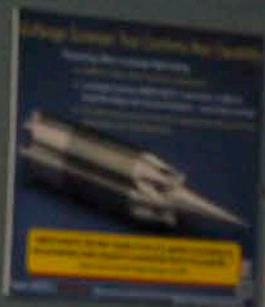


A group of approximately ten people, including men, women, and a child, are seated around a large, light-colored wooden conference table. A man with a beard and glasses, wearing a green polo shirt and blue jeans, stands on the right side of the table, holding a model of a missile or launch tube. He is presenting the model to the group. The table is cluttered with papers, a white hard hat, a telephone, and other items. In the background, a blue poster titled "AEDC Hyperballistic Ranges" is displayed on a stand. The wall behind the poster features a bulletin board with several notices and photographs related to AEDC's history and operations. The room has a drop ceiling with rectangular fluorescent light fixtures.

First Shot with  
83-mm Diameter  
Launch Tube  
June 1, 1967

First Shot with  
102-mm Diameter  
Launch Tube  
February 24, 1967

Shot No. 4011  
October 15, 1967  
Initial at Maximum  
Energy at Impact



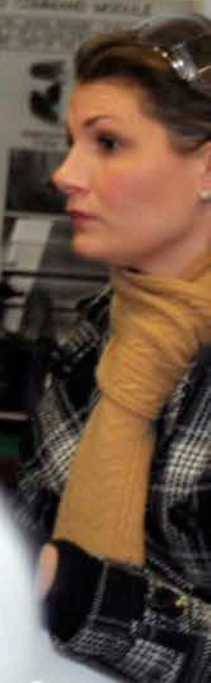
### AEDC Hyperballistic Ranges

G Range Mass vs. Velocity  
100-mm (4-in) Launch Tube

Launch Tube	Mass (kg)	Velocity (m/s)
4 in (102 mm) Launch Tube	1.0	1000
4 in (102 mm) Launch Tube	2.0	1000
4 in (102 mm) Launch Tube	3.0	1000
4 in (102 mm) Launch Tube	4.0	1000
4 in (102 mm) Launch Tube	5.0	1000

Ability to Duplicate  
Sub-Scale for  
Defense and  
Research

### APOLLO COASTING MISSILE



**Hyperballistic**  
**Engines**

Launch Tube Length vs. Velocity

Launch Tube Length

Velocity

Duplicate to Scale for Defense and...









30 TON



30 TON

INSTRUMENTATION AND CONTROL





















Eden Health Services

Eden Health Services  
1000 10th Street  
PO Box 1000  
Eden, North Carolina 27024  
Phone: 704.733.1000  
Fax: 704.733.1001  
www.edenhealth.com

JIMMY MITCHELL

1018

LOAD LIM

KEEP

SKY









TEAM AEC