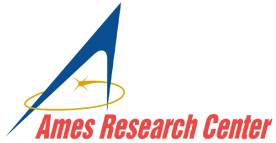


HIGH VOLTAGE ELECTRICAL SYSTEMS

FACILITIES MAINTENANCE SERVICES

**NASA Ames Research Center
MOFFETT FIELD, CA 94035-1000**



ELECTRICAL OVERVIEW

- Ames Research Center (ARC)

Five 122,000 VOLT SUBTATIONS

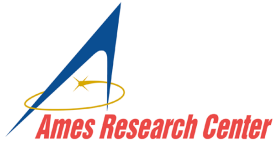
- Two Distribution Substations

The main substation has 2 buss entries from Utility provider rated at 300MW each

- Three Research Substations

ELECTRICAL OVERVIEW - 2

- 13.8KV Underground Delivery Loop System
 - 25 Building substations
- 7.2 KV Underground Loop System
 - 19 Building substations
- Ames has dedicated Research Underground Radial Systems rated at 13.8KV and 7.2KV



ELECTRICAL OVERVIEW - 3

- NASA Research Park (NRP), Moffett Field
- One 122KV substation, single service entry from Utility provider rated at 15MW
- Underground Radial Distribution System at 12KV and 2.4KV
- 5 Main Distribution switchgears
- 12KV overhead

ELECTRICAL OVERVIEW - 4

- NASA ARC, NRP, Moffett Field utilizes a variety of equipment types including:
 - Air Switches 122KV, 15KV, 8KV
 - SF6 Gas circuit breakers rated at 122KV, 15KV
 - Oil Circuit breakers rated at 122KV, 15KV, 8KV, and 5KV
 - Air Circuit breakers rated at 15KV, 8KV, 5KV
 - Vacuum Circuit breakers rated at 15KV, 8KV
 - Fused cutouts rated at 15KV, 8KV, and 5KV
 - Pad mounted SF6 Distribution switches rated at 15KV
 - Oil Type Transformers 122KV, 13.8KV, 12KV, 7.2KV, 2.4KV
 - Dry Type Transformers 13.8KV, 12KV, 7.2KV, 2.4KV