NPS SWEEP MAGNET STATUS AND TEST PLAN

CHARLES HYDE

MAGNET ASSEMBLY

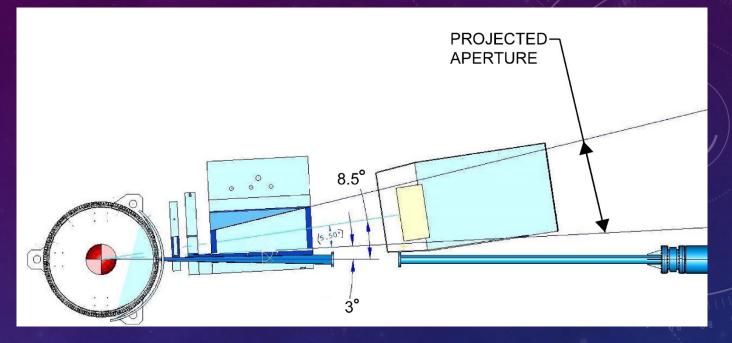
- Magnet in TESTLAB
 - Power : 10%

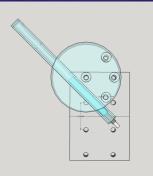
 of max,
 limited by
 cooling
- Mapper constructed and tested with software controls



MAGNET TESTING: PHASE I. IN TESTLAB

- OSP in progress
- Current limited to 200 Amp
- Mapper program to measure three-axis field components in 1 cm intervals in 3-D
 - Main Gap + fringe region.
 2 meters total in z
 - Beam gap, midplane +/- 0.5 cm vertical
- Complete in May 2020





Hall-probe holder for full access to minimum gap region



MAGNET TESTING: PHASE II. HALL C, ON FLOOR

- OSP in TBD
- Full Current
 - Needed for reliable measurement of fringe field in beam gap
- Mapper program to measure three-axis field components in 1 cm intervals in 3-D
 - Main Gap + fringe region. 2 meters total in z
 - Beam gap, midplane +/- 0.5 cm vertical