

KC-135 EXPERIMENTS

GOAL - VERIFICATION OF

- 1. DESIGNS FOR IMPROVED URINAL**
- 2. CRITICAL POINTS ON THEORETICAL CURVES**

WORK TO DATE

- **STUDY OF COLLECTION EFFICIENCY USING IDEALIZED SHAPES
20° & 40° CONES AT VARIOUS FLOW RATES AND WITH TWO PROBE
SHAPES**
- **A FEW DATA POINTS FOR WEBER NUMBER**

RESULTS

ANALYSIS IN PROGRESS BUT PRELIMINARY RESULTS INDICATE 10-15 CFM WITH 40°

CONE WILL ADEQUATELY COLLECT ALL BUT LAST "DROP" FOR MALES.

LAST DROP CAN PROBABLY BE REMOVED BY 10-15 CFM AND A URINAL OF MORE

COMPLEX SHAPE.

EXPERIMENTAL RESULTS ARE IN GENERAL AGREEMENT WITH THEORY TO DATE.

CONCLUSION

PROPERLY DESIGNED MALE URINAL PRESENTS NO PROBLEM WITH A MINIMUM OF

10 CFM AIR

FUTURE

ONE TO TWO ADDITIONAL FLIGHTS TO VERIFY URINAL DESIGN WITH BETTER INTERFACE SIMULATION AND TO COMPLETE THEORETICAL CONFIRMATION.