

30 April 1956

RADOME SURVEY

OFFICE OF NAVAL RESEARCH

1. Bjorksten Research Laboratories Nonr-1464(00)-analyses in connection with the optimum design of the metal screen radome (under investigation per N383s-93247)
ONR Project Engineer H. E. Sorrows
2. Hughes Aircraft Company Nonr-1466(00)- analysis of uniform, systematic and random radome deviation with the objective of establishing radome tolerances
ONR Project Engineer H. E. Sorrows
3. National Bureau of Standards NAonr-132-52 study of inorganic fluorosilicates in connection with radome materials requirements
ONR Project Engineer W. Arsem
4. Rutgers University Nonr-404(03) -development of ceramic materials and ceramic techniques for radome applications
ONR Project Engineer W. Arsem

BUREAU OF AERONAUTICS

1. Emerson and Cuming, Inc. NOas 491-c - development of a low density (10-12lb/cuft) inorganic foamed-in-place structural material to withstand temperatures up to 900°F
BuAer Project Engineer P.M. Goodwin
2. Forest Products Laboratory NAer 01683 - joint USAF-Navy program-development of criteria for the more efficient design of reinforced plastic structures including publication of ANC-17 Bulletin "Plastics for Aircraft - Part I Reinforced Plastics" June 1955
BuAer Project Engineer P.M. Goodwin
3. Imperial Glass Corporation NOas 55-213-c - development of a higher modulus (stiffer) glass fiber for use in reinforced plastics
BuAer Project Engineer P.M. Goodwin
4. Vitro Laboratories NOas 56-382-c - investigation of the feasibility of electrophoretic deposition of uniformly thick bonded solids onto plastic radomes for rain erosion protection
BuAer Project Engineer I. B. Galane
5. Westinghouse Electric Corporation NOas 51-884-c - development of Kelf irdomes including an investigation of the effect on Kelf properties of irradiation, high temperatures, and special fabrication techniques.
BuAer Project Engineer I. B. Galane

NAVAL AIR DEVELOPMENT CENTER

1. Bjorksten Research Laboratories N383s-93247 - investigation of the applicability to radome design of metal screens to be embedded in the radome wall to minimize insertion phase and reflection and to maximize transmission efficiency
NADC Project Engineer J. Ambrogi, Jr.

2. Virginia Polytechnic Institute Department of Ceramic Engineering
N383(62269)23378A - development of lightweight medium dielectric (4-6 range)
foamed ceramic core with dense ceramic skins having the same dielectric
and thermal expansion as the core (to utilize electrical superiority of half-
wave wall construction and structural advantage of A sandwich)

NADC Project Engineer J. Ambrogi, Jr.

3. NADC current developments include

- a. aerodynamic heating investigation
- b. unity dielectric wall development
- c. lightweight medium dielectric ceramic development
- d. deicing systems
- e. development of dielectric insert theory
- f. near field instrumentation
- g. materials for use at elevated temperature

NADC Project Engineer J. Ambrogi, Jr.