

AD-A160 789

AIRCRAFT MEASUREMENTS AND COORDINATION IN FASINEX(U)
CALIFORNIA UNIV IRVINE DEPT OF MECHANICAL ENGINEERING
C FRIEME 10 JUL 85 N00014-85-K-0190

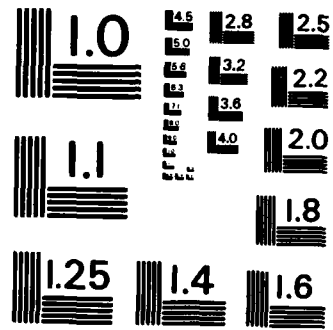
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS - 1963 - A

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N00014-85-K-0190
"Aircraft Measurements and
Coordination in FASINEX"

Semi-Annual Progress Report

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ELECTE
OCT 25 1985
S B D (2)

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As of July 10, 1985, the following progress was made on the proposal work:

1. Wind and Turbulence Measurements on NRL Navy RP3A aircraft, BUNO 149670:
 - a. Radome pressure transducers purchased and installed with radome tubing, wiring. See photos. Test flights performed to determine that pressure signals are active. See strip chart:
 - b. Data system for aircraft tested, borrowed from National Center for Atmospheric Research (NCAR), Boulder, Colorado and shipped to NRL and made operational in the laboratory:
 - c. Various environmental sensors obtained from USN China Lake, CA, for the NRL RP3A: Barnes infrared meteorological radiometers; parts of dew point system:
2. FASINEX Aircraft Coordination :
 - a. Site visit made to NAS Bermuda. Facilities will be provided for transient FASINEX aircraft by NAS Bermuda;
 - b. Cooperative agreement for joint use of NCAR Electra research aircraft by GALE and FASINEX projects worked out.
 - c. Attended GALE planning meeting as FASINEX representative.

The following problem areas are noted:

1. There was a three month delay by ONR in sending funds for the above contract. This resulted in delay in ordering equipment.
2. To date, a Litton LTN 51 Inertial Navigation System has not been received from NAVAIR. It is a crucial part of the RP3A wind system.
3. NRL aircraft data system is behind schedule, which necessitated borrowing a data system (see 1b above).
4. NAVAIR may not be able to supply a APN 159 High Altitude Radar Altimeter, necessary for static pressure corrections and barometric pressure measurements on the RP3A.

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The following activities are planned:

1. RP3A test flights in October and December 1985.
2. FASINEX aircraft planning meeting at NCAR Boulder, Colorado, 25-27 Sept. 1985.
3. NRL is purchasing total air temperature system (Rosemount 102EAL + 510 BH) sensor for dew point system (General Eastern 1011) and will mount same and Barnes radiometers on RP3A.

Presentations made:

RP3A Wind Radome System - presented at NASA/NCAR Interagency Workshop on Research Aircraft, Boulder, Colorado, August 19-22, 1985.

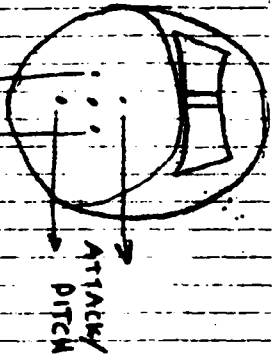


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TRIPAR TAPE #4
 6-11-85
 NRL 67D RPA
 PASSURE (PPCP) GUST PROBE

SALEM NH USA
 SIDESCIP/YAW
 FORCED PITCHES

ATTACK PRESSURE SIGNAL

→ 1 sec

time →

SALEM NH USA

SALEM NH USA

SIDESCIP PRESSURE SIGNAL

FORCED YAWS

1 mm/sec

END

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