

7 October 1976

MEMO TO: Cliff Murino

FROM : V. E. Lally *vel*

SUBJECT: GAMP Monthly Report - September 1976

EWE

Transmitter specifications are being defined and work is underway on a request for proposal. This request is expected to be ready in October.

Solar-cell panel sample cells are being obtained for testing, along with cost information.

Three candidate designs for the package are undergoing thermal evaluation.

Two separate cutdown devices are planned for EWE. One will cut down the package if the balloon descends below its assigned pressure altitude. Sample aneroid-driven switches are being furnished for evaluation. The second cutdown will be programmed for northern hemisphere activation. A "smart" magnetometer/24-hr clock/sunrise sensor combination is being investigated. This unit will select a vertical magnetic intensity level dependent upon the occurrence of sunrise versus Universal Time.

Work on a procurement package for 340 ready-to-fly balloons is almost complete.

Safesonde

Preliminary analyses of several of the eleven Safesonde flights has been made. These flights were tracked with the Wallops AN/FPQ-6 and AN/FPS-16 radars. Intercomparison flights between the Safesonde and standard radiosondes were made. The results to date show the Safesonde system yielding excellent temperature and humidity data and the preliminary analysis of two Safesonde flights indicate that the system has an accuracy comparable to the AN/FPQ-6 precision tracking radar. Analysis of the engineering data gives evidence that the Safesonde package thermal characteristics and the battery power sources meet their design goals.

A limited number of flights are now planned for November to test the performance of Safesondes with high upper level winds. Launches will be made from a recently designed launch pole to eliminate multipath problems at and prior to release. The telephone line link to one of the receiving sites has been obstinately noisy. We plan to replace this land-line link with a radio link which should hook into the existing installation with no interface problem.

A 4051 Tektronix computing system has been ordered by NOAA for the system. This will become a real-time data analysis terminal for the

developmental system. It will provide an output operational message of temperature, humidity, and wind data for local display and for transmission on call over standard communication links. A tape recorder of all useful data for each flight will be provided for research use.

LLAMB

A contract for the production of a 9-m prototype balloon has been let. It is expected that the launch of this balloon will be in the second quarter of calendar year 1977.

Carrier Balloon System

The final report on this effort has been completed and is currently being printed in-house.

Drs. Olson and Passi were invited guests of the Space Applications Center in Ahmedabad, India, this month. They discussed the design of ship-board Omegasondes for the FGGE and MONEX programs.

A report on the results of the Majuro and Samoa Omega/VLF survey is nearing completion and will be published early next quarter.

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