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Thru: W. P. Gammill, Chief, HP Branch

August 10, 1964

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U. S. Weather Bureau

WEATHER BUREAU MONTHLY ACTIVITY REPORT FOR JULY 1964

NFI:LGT

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Iodine 129 Studies: The Iodine 129 tracer technology studies have been postponed until August due to unexpected difficulty in the synthesization of the gaseous tracer material by the contractor. This problem has apparently been resolved and the tracer material has been received.

The 200-foot research tower has been fully instrumented at four levels with anemometers and bivanes and at seven levels with temperature transducers. This meteorological information, in conjunction with the radar-tetron data, will be used to evaluate the results of the tracer releases.

Operational Forecast: A verification study of the forecast of precipitation and cloud coverage by the facsimile has been made to determine its usefulness for operational purposes. Cloud coverage and precipitation have been important forecast parameters for certain reactor tests such as SNAP and the SPERT destruct tests. Preliminary studies indicate the gross features of cloud cover forecasts by facsimile are insufficiently accurate without local adaptation for operational purposes; however, the precipitation forecasts have been 80% accurate when the precipitation is separated into several intensity categories.

M-33 Radar: The radar site north of MTR has proven to be a good operational site for covering most of the NRTS with a minimum of background clutter. Several transponder flights in different directions in excess of 60 miles have been conducted. Maximum coverage of activities at Grid #3 is also afforded by this site.

C. R. Dickson participated in meteorological studies at Atlantic City, New Jersey, being conducted by the Weather Bureau involving the use of radar and transponder, so further experience in techniques of launching and tracking radar targets has been acquired.

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CERT: A wind station has been installed at the CERT site and data is being collected and analyzed to insure optimum design of the sampling grid and tracer release line. The anomalies between the CERT site and long-period recording weather stations, if any, will be examined.

Reactor Hazards and Operations: Meteorological advice and consultation was given to personnel of Argonne for the computation of reactor hazards from the Zero Power Plutonium Reactor. Operational forecasts for the SPERT IV continued through the month.

Miscellaneous: The MIC travelled to the micrometeorological sites at Tempe, Arizona and Davis, California to become acquainted with the most recent developments and results of measurements of turbulence and energy exchange in the lower levels of the atmosphere.

Foreign scientist Rajendra Sachdev, India, has completed his training at the NRTS and has left for indoctrination at several other sites in the United States.

Norman F. Islitzer
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cc: Don Pack EMRP
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