METEOROLOGY PAYLOAD PACKAGE (APP-A)

OBJECTIVES

- FLIGHT TEST EXPERIMENTAL METEOROLOGICAL INSTRUMENTATION.
- USE MAN'S ABILITY TO DIRECT SENSORS TO METEOROLOGICAL EVENTS OF MOMENT.
- COMBINE NUMEROUS SENSORS FOR SIMULTANEOUS OBSERVATION AND CORRELATION OF DATA.
- CONFIRM SPECTRAL SIGNATURES OF EARTH RESOURCES.
- FLIGHT TEST SOME INSTRUMENTS WHICH MAY CONTRIBUTE TO THE DETECTION OF AIR POLLUTION.
- IMPROVE KNOWLEDGE OF ATMOSPHERIC COMPOSITION AND STRUCTURE.
- TAKE ADVANTAGE OF INCREASED PAYLOAD CAPACITY AND VOLUME PROVIDED BY AAP MISSIONS.

PRINCIPAL EXPERIMENTS

- DAY-NIGHT CAMERA SYSTEM
- DIELECTRIC TAPE CAMERA SYSTEM
- MILLIMETER WAVE PROPAGATION
- MULTI-SPECTRAL PHOTOGRAPHY
- IR TEMPERATURE SOUNDING
- O_2 & H_2O MICROWAVE RADIOMETER
- IR FILTER WEDGE SPECTROMETER
- VISIBLE RADIATION POLARIZATION MEASUREMENTS
- STELLAR REFRACTION DENSITY MEASUREMENTS
- UHF SFERICS DETECTION
- IR INTERFEROMETER SPECTROMETER
- 15 MICRON GRATING SPECTROMETER
- MULTI-CHANNEL RADIOMETER
- SELECTIVE CHOPPER RADIOMETER

EXPECTED FLIGHT READINESS DATE: MID 1969

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FIGURE 81

EARTH RESOURCES PAYLOAD PACKAGE (APP-B)

OBJECTIVES

- ESTABLISH FEASIBILITY OF OBTAINING USEFUL DATA FROM ACTIVE AND PASSIVE REMOTE SENSORS.
- DEVELOP TECHNIQUES FOR EXTRAPOLATION AND CORRELATION OF DATA OBTAINED SIMULTANEOUSLY FROM SEVERAL REMOTE SENSORS.
- VERIFY METHODS FOR TRANSMISSION AND ANALYSIS OF LARGE AMOUNTS OF DATA.
- DETERMINE USEFULNESS OF MAN IN EARTH ORBITAL APPLICATIONS SPACECRAFT.
- OBTAIN EVIDENCE ON THE NEED FOR OPERATIONAL EARTH RESOURCES SPACE MISSION.
- UTILIZE PAYLOAD CAPACITY OF AAP MISSION.

PRINCIPAL EXPERIMENTS

- MULTIBAND CAMERA
- METRIC CAMERA
- PANORAMIC CAMERA
- TRACKING TELESCOPE
- WIDE-RANGE IMAGER
- RADAR IMAGER
- RADAR ALTIMETER AND SCATTEROMETER
- LASER ALTIMETER
- IR SPECTROMETER AND RADIOMETER
- PASSIVE MICROWAVE IMAGER AND RADIOMETER
- ABSORPTION SPECTROSCOPE
- UV SPECTROMETER

EXPECTED FLIGHT READINESS DATE: MID 1970

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FIGURE 82