Airborne Instrumentation Research Project

Flight Summary Report

Flight No. 77-112
Date 27 July 1977

FSR- 1028

NASA
National Aeronautics and
Space Administration
Ames Research Center
Moffett Field, California 94035

Airborne Missions and Applications Division
FLIGHT SUMMARY REPORT

Flight No: 77-112
FSR No: 1028
Sensor Package: RC-10 / Aerosol Particulate Sampler (APS)

Purpose of Flight:
#0488 Support
Requestor: Robie
#0047 Support
Requestor: Ferry

Area(s) Covered: Sacramento and San Joaquin Valleys

SENSOR DATA

Accssion No: 02520
Sensor ID No: 031
Sensor Type: RC-10
Focal Length: 6" 153.05mm

Film Type: High Definition Aerochrome Infrared, SO-127

Filtration: 2.2 AV + CC .30M

Spectral Band: 510-900nm
f Stop: 5.6
Shutter Speed: 1/125
No. of Frames: 265
% Overlap: 60
Quality: Excellent
Remarks: ---

Date: 27 July 1977
Julian Date: 208
Aircraft No: 5

Non-imaging sensor
This flight was flown in support of Flight Requests #0488 (Robie, California Department of Water Resources) and #0047 (Ferry, NASA/ARC) under the FY 1978 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage and Aerosol Particulate Sampler (APS) data were obtained over the Sacramento and San Joaquin Valleys in California (see Track Map). Because of the extensive flight track, the APS data track is not shown except at times the camera was operating.

The entire flight was cloud-free. The imagery is of excellent quality with no camera or processing malfunctions noted.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.
## FLIGHT LINE DATA

### FLIGHT NO. 77-112

<table>
<thead>
<tr>
<th>Check Points</th>
<th>Frame Numbers</th>
<th>Time (GMT - hr, min, sec)</th>
<th>Altitude, MSL feet/meters</th>
<th>Cloud Cover/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-B</td>
<td>1833-1854</td>
<td>17:27:10 - 17:47:08</td>
<td>65,000/19800</td>
<td>Clear</td>
</tr>
<tr>
<td>C-D</td>
<td>1855-1902</td>
<td>17:50:29 - 18:34:09</td>
<td></td>
<td>Clear</td>
</tr>
<tr>
<td>I-J</td>
<td>2017-2080</td>
<td>20:26:27 - 21:24:00</td>
<td></td>
<td>10% smoke, frs. 2076-2077 Clear</td>
</tr>
<tr>
<td>APS</td>
<td>---</td>
<td>17:16:00 - 21:36:00</td>
<td></td>
<td>APS #1 and #2 opened and closed</td>
</tr>
</tbody>
</table>