FLIGHT SUMMARY REPORT

Flight #:  90-068
Date:  30 March 1990
Sensor Package:  Wild-Heerbrug RC-10
                Dual Hycon HR-732
Area(s) Covered:  Nevada (ferry from Moffett Field, CA to Patrick AFB, FL)

Investigator(s):  Functional Check Flight
Flight Request:  90X001
Aircraft #:  709
Julian Date:  090

SENSOR DATA

Accession #:  04011  04012  04013
Sensor ID #:  026  018  019
Sensor Type:  RC-10  HR-732  HR-732
Focal Length:  12"  24"
               304.97 mm  609.6 mm  609.6
Film Type:  High Definition
            Aerochrome IR
            Color Infrared
            SO-131
            SO-131
            Panatomic-X
            3400
Filtration:  cc.10B  -----  Wratten 12
Spectral Band:  510-900 nm  510-900 nm  510-700 nm
f Stop:  4  8  8
Shutter Speed:  1/150  1/75  1/75
# of Frames:  21  41  41
% Overlap:  60  60  60
Quality:  Excellent  Excellent  Excellent
Remarks:
Airborne Science and Applications Program

The Airborne Science and Applications Program (ASAP) is supported by three ER-2 high altitude Earth Resources Survey aircraft. These aircraft are operated by the High Altitude Missions Branch at NASA-Ames Research Center, Moffett Field, California. The ER-2s are used as readily deployable high altitude sensor platforms to collect remote sensing and in situ data on earth resources, celestial phenomena, atmospheric dynamics, and oceanic processes. Additionally, these aircraft are used for electronic sensor research and development and satellite investigative support.

The ER-2s are flown from various deployment sites in support of scientific research sponsored by NASA and other federal, state, university, and industry investigators. Data are collected from deployment sites in Kansas, Texas, Virginia, Florida, and Alaska. Cooperative international scientific projects have deployed the aircraft to sites in Great Britain, Australia, Chile, and Norway.

Photographic and digital imaging sensors are flown aboard the ER-2s in support of research objectives defined by the sponsoring investigators. High resolution mapping cameras and digital multispectral imaging sensors are utilized in a variety of configurations in the ER-2s' four pressurized experiment compartments.

Camera Systems

Various camera systems and films are used for photographic data collection. Film types include high definition color infrared, natural color, and black and white emulsions. Available photographic systems are as follows:

- Wild-Heerbrug RC-10 metric mapping camera
  - 9 x 9 inch film format
  - 6 inch focal length lens provides area coverage of 16 x 16 nautical miles from 65,000 feet
  - 12 inch focal length lens provides area coverage of 8 x 8 nautical miles from 65,000 feet

- Hycon HR-732 large scale mapping camera
  - 9 x 18 inch film format
  - 24 inch focal length lens provides area coverage of 4 x 8 nautical miles from 65,000 feet

- IRIS II Panoramic camera
  - 4.5 x 34.7 inch film format
  - 24 inch focal length lens
  - 90 degree field of view provides area coverage of 2 x 21.4 nautical miles from 65,000 feet
CAMERA FLIGHT LINE DATA
FLIGHT NO. 90-068

<table>
<thead>
<tr>
<th>Accession #</th>
<th>04011</th>
<th>04012</th>
<th>04013</th>
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<tbody>
<tr>
<td>Sensor #</td>
<td>026</td>
<td>018</td>
<td>019</td>
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<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>
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<tr>
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<td>A - B</td>
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NOTE: Times on film are local standard time -- should be 16xxxx rather than 8xxxx