

LABORATORY FOR APPLICATIONS
OF
REMOTE SENSING
ANNUAL FINANCIAL REPORT
TO
THE UNIVERSITY

SEPTEMBER, 1976

PURDUE/LARS
1220 POTTER DRIVE
47906

TABLE 1

LARS RESEARCH FUNDING

July 1, 1975 to June 30, 1976

| | |
|--|--------------|
| PY (NASA) (Application of Remote Sensing Technology to the Solution of Problems in the Management of Resources in Indiana) | \$ 213,883 |
| SR&T (75-76) (NASA) (Research in Remote Sensing of Agriculture, Earth Resources, and Man's Environment) | 1,183,500 |
| SR&T (76-77) (NASA) (Research in Remote Sensing of Agriculture, Earth Resources, and Man's Environment) | 93,842 |
| Landsat Crops (NASA) | 88,635 |
| Landsat Colorado (NASA) | 58,758 |
| Skylab Colorado (NASA) | 51,336 |
| Skylab Wabash Valley (NASA) | 10,899 |
| EDC Terminal (NASA) | 53,577 |
| Wallops Terminal (NASA) | 6,589 |
| Goddard Terminal (NASA) | 13,030 |
| Monthly Short Course (Continuing Education) | 26,756 |
| ISU Terminal (State of Indiana) | 53,979 |
| Continuing Education Minicourse (Continuing Education) | 4,400 |
| Symposium (Continuing Education) | 3,000 |
| Visiting Scientists (Independent Agents) | 21,339 |
| Great Lakes Output Study (EPA) | 2,335 |
| Great Lakes Follow On (EPA) | 34,390 |
| Fast Ice (University of Colorado) | 2,607 |
| USGS | 40,543 |
| CITGO | 29,581 |
| Missouri SCS | 21,268 |
| Sudan | 43,205 |
| Bolivia | 28,123 |
| Iraq | 28,152 |
| NDM (Industry) | <u>7,782</u> |
| Total Funded Research Activities | \$2,121,509 |

TABLE 2

LARS RESEARCH EXPENDITURES

July 1, 1975 - June 30, 1976

Salaries:

| | | |
|-----------------------|--------------|---------------|
| Agriculture | \$172,969 | |
| Science | 47,107 | |
| Engineering | 360,083 | |
| HSSE | 13,504 | |
| Industrial Management | <u>3,150</u> | |
| | | \$ 596,813 |
| Fringe Benefits | | 57,840 |
| Overhead* | | 380,794 |
| Supplies | | 185,582 |
| Capital | | 32,079 |
| Computer | | 746,945 |
| Travel | | <u>53,177</u> |
| TOTAL | | \$2,053,230 |

*Overhead is not 68.5 percent of salaries as Continuing Education and Agriculture Memoranda of Agreement

TABLE 2a
ENGINEERING RESEARCH EXPENDITURES
1975 - 1976

| | <u>Engineering Experiment Station</u> | <u>Electrical Engineering</u> | <u>Mechanical Engineering</u> | <u>Nuclear Engineering</u> | <u>Total</u> |
|-----------------|---|-----------------------------------|-----------------------------------|--------------------------------|---------------|
| Salaries | \$ 200,738* | \$134,188 | \$17,938 | \$ 7,219 | \$ 360,083 |
| Overhead | 114,379 | 91,060 | 11,422 | 4,945 | 221,806 |
| Fringe Benefits | 9,708 | 15,295 | 1,397 | 592 | 26,992 |
| Computer | 732,741 | | | | 732,741 |
| Travel | 53,177 | | | | 53,177 |
| Supplies | 186,717 | (196) | 64 | (383) | 186,202 |
| Capital | <u>32,079</u> | | | | <u>32,079</u> |
| Total | \$1,329,539 | \$240,347 | \$30,820 | \$12,373 | \$1,613,080 |

*Monthly Short Course \$26,756, Continuing Education, Mini Course \$4,400, Symposium \$3,000 included here.

TABLE 2b
AGRICULTURE RESEARCH EXPENDITURES
1975 - 1976

| | <u>Agronomy</u> | <u>Forestry and Conservation</u> | <u>Horticulture</u> | <u>Total</u> |
|-----------------|-----------------|--------------------------------------|---------------------|--------------|
| Salaries | \$113,295 | \$ 56,030 | \$3,644 | \$172,969 |
| Overhead | 74,435 | 38,381 | 2,496 | 115,312 |
| Fringe Benefits | 14,889 | 8,837 | 771 | 24,497 |
| Computer | 14,204 | | | 14,204 |
| Supplies | <u>1,115</u> | <u>(636)</u> | <u>(207)</u> | <u>272</u> |
| Total | \$217,938 | \$102,612 | \$6,704 | \$327,254 |

TABLE 2c
INDUSTRIAL MANAGEMENT RESEARCH EXPENDITURES
1975 - 1976

| | |
|-----------------|------------|
| Salaries | \$3,150 |
| Overhead | 2,158 |
| Fringe Benefits | <u>239</u> |
| Total | \$5,547 |

TABLE 2d
SCIENCE RESEARCH EXPENDITURES
1975 - 1976

| | <u>Geoscience</u> | <u>Computer</u> | <u>Statistics</u> | <u>Total</u> |
|-----------------|-------------------|-----------------|-------------------|--------------|
| Salaries | \$33,206 | \$ 6,097 | \$ 7,804 | \$47,107 |
| Overhead | 22,746 | 4,176 | 5,346 | 32,268 |
| Fringe Benefits | 2,502 | 8 | 1,218 | 3,728 |
| Supplies | <u>(702)</u> | <u>(190)</u> | <u> </u> | <u>(892)</u> |
| Total | \$57,752 | \$10,091 | \$14,368 | \$82,211 |

TABLE 2e
H.S.S.E. RESEARCH EXPENDITURES
1975 - 1976

| | <u>Education</u> | <u>Communications</u> | <u>Total</u> |
|-----------------|-------------------|-----------------------|-------------------|
| Salaries | \$12,317 | \$1,187 | \$13,504 |
| Overhead | 8,437 | 813 | 9,250 |
| Fringe Benefits | 2,123 | 261 | 2,384 |
| Supplies | <u> </u> | <u> </u> | <u> </u> |
| Total | \$22,877 | \$2,261 | \$25,138 |

TABLE 3
LARS GENERAL FUND ALLOCATION
July 1975 to June 1976

17-Fund Allocation:

| | |
|---------------|---------------|
| Recurring | \$ 79,583 |
| Non-recurring | <u>30,000</u> |
| TOTAL BUDGET | \$109,583 |

Use of Funds:

| | |
|----------|--------------|
| Salaries | \$65,020 |
| Supplies | 36,664 |
| Travel | 330 |
| Capital | <u>7,569</u> |

| | |
|----------------|------------------|
| TOTAL EXPENSES | <u>\$109,583</u> |
|----------------|------------------|

| | |
|---------|-----|
| BALANCE | -0- |
|---------|-----|

TABLE 4

LARS COMPUTATIONAL FACILITY SELF-SUPPORTING ACTIVITY

July 1, 1975 to June 30, 1976

| | | |
|-----------------------------|---------------|----------------|
| Income for Services | | \$835,852 |
| Expenditures: | | |
| Machine Rental | \$411,735 | |
| Salary and Fringe Benefits | 219,090 | |
| Expendable Supplies | 53,886 | |
| Administrative Expenditures | <u>16,036</u> | |
| | | <u>700,747</u> |
| BALANCE | | \$135,105 |

TABLE 6 POTENTIAL PROJECTS

AS OF JUNE 2, 1976

| <u>SOURCE</u> | <u>PROJECT</u> | <u>PROB.</u> | <u>FY77</u> | <u>FY78</u> | <u>FY79</u> | <u>DURATION</u> |
|---------------------|-------------------------------|--------------|-------------|-------------|-------------|-----------------|
| NASA | SR&T | .9 | | \$1,500,000 | \$1,500,000 | 6/77 - 5/78 |
| NASA | NASA/USSR | .8 | \$ 85,000 | | | 7/76 - 6/77 |
| NASA | St. Regis | .5 | 196,000 | | | 7/76 - 6/77 |
| NASA | FMRP Aerial Photos | .5 | 6,500 | | | 6/76 - 8/76 |
| NASA | FMRP Data Quality | .5 | 86,432 | | | 7/76 - 6/77 |
| VARIOUS AGENCIES | Visiting Scientists | .1 | 30,000 | | | 7/76 - 6/77 |
| PURDUE CONVOS | Symposium | .5 | 3,000 | | | 11/76 - 6/77 |
| SRS/USDA | SRS/USDA | .1 | 5,000 | | | 9/76 - 6/77 |
| EPA | Midwest Energy | .8 | 32,000 | 32,000 | 16,000 | 6/76 - 12/78 |
| US AID | International Training | .2 | 40,000 | | | 7/76 - 6/77 |
| US AID | International Applications | .5 | 85,923 | 42,962 | | 7/76 - 12/77 |
| NSF | Education | .2 | 58,635 | 123,343 | 134,881 | 1/77 - 2/80 |
| NSF | Geophysical | .5 | 106,297 | 110,302 | | 6/76 - 5/78 |
| Venezuela | Venezuela Inventory | .6 | 19,890 | | | 8/76 - 11/76 |

TABLE 6 (CON'D)

| <u>SOURCE</u> | <u>PROJECT</u> | <u>PROB.</u> | <u>FY77</u> | <u>FY78</u> | <u>FY79</u> | <u>DURATION</u> |
|--------------------------|-----------------------------|--------------|-------------|-------------|-------------|-----------------|
| BOLIVIA | BOLIVIA II | .6 | 40,000 | | | 8/76 - 3/77 |
| MIN. NAT. RES. (IRAN) | Iran | .5 | 55,738 | | | 5/76 - 10/76 |
| IDB | Central America | .1 | 26,666 | 40,000 | 40,000 | 9/76 - 8/79 |
| NASA | PY | .2 | | 70,000 | 65,000 | 6/77 - 5/79 |
| NSF | Cancer II | .3 | | 125,000 | 125,000 | 6/77 - 5/79 |
| NIH | Jaundice | .5 | 40,000 | 35,000 | | 6/76 - 6/78 |
| ISU | ISU Terminal | .8 | 57,225 | | | 7/76 - 6/77 |
| | | | | | | |
| | TOTAL | | \$974,306 | \$2,078,607 | \$1,880,881 | |
| | PROBABLE ADDITIONAL FUNDING | | \$491,153 | \$1,549,900 | \$1,444,276 | |