

APPENDIX E

Grants for the International Geophysical Year Program Fiscal Year 1958

AURORA AND AIRGLOW			
AIR FORCE CAMBRIDGE RESEARCH CENTER:			
Procurement of Miscellaneous Supplies	\$3,750		
Operations at Sacramento Peak and Tonanzintla	1,000		
UNIVERSITY OF ALASKA:			
Operational Cost of Auroral Observations and Measurements	123,100		
Operational Cost for Radio Wave Absorption and Cosmic Noise Method	22,500		
ARCTIC INSTITUTE OF NORTH AMERICA:			
Operational Cost of the Auroral Program in the Antarctic	55,250		
CORNELL UNIVERSITY:			
Headquarters for All-Sky Cameras in the United States	11,000		
Radar Observations at Ithaca	4,000		
All-Sky Camera Operations of Six U. S. Stations	6,900		
The Preparation and Processing of Auroral Data	32,000		
NATIONAL BUREAU OF STANDARDS:			
Airglow Data Reduction	30,000		
Operational Costs and Coordination of Northern Stations	23,414		
STANFORD UNIVERSITY:			
Operations of Western United States Radar Stations	10,300		
Development of Equipment for Meteor Observations in the Antarctic	1,100		
Operation Cost for Radio Absorption and Cosmic Noise Method in Western United States	11,500		
COSMIC RAYS			
CALIFORNIA INSTITUTE OF TECHNOLOGY:			
Balloon Flights to be made in the Antarctic	7,600		
UNIVERSITY OF CALIFORNIA:			
Construction of Air Shower Detectors	2,300		
Procurement and Modification of Neutron Counters and Associated Equipment	28,850		
CARNEGIE INSTITUTION OF WASHINGTON:			
Reduction of Cosmic Ray Ionization Chamber Data	12,000		
UNIVERSITY OF CHICAGO:			
High Altitude Measurements of Cosmic Rays	8,708		
		Study of the Isotopic Constitution of Cosmic Radiation at Balloon Altitudes	8,175
		FRANKLIN INSTITUTE:	
		Correlation of Solar Activity with High Altitude Primary Cosmic Ray Intensity	20,140
		Construction of a Neutron Monitor—Shipboard	1,720
		Construction and Operation of a Neutron Monitor, Thule, Greenland	2,940
		STATE UNIVERSITY OF IOWA:	
		High Altitude Cosmic Ray Measurements in the Arctic	37,663
		UNIVERSITY OF MARYLAND:	
		Study of High Speed Cosmic Ray Fluctuations	16,700
		Reduction of Cosmic Ray Counter Data	10,000
		UNIVERSITY OF MINNESOTA:	
		Monitoring Cosmic Ray Intensities at High Altitude	25,000
		Trajectory Computation and Study	2,800
		UNIVERSITY OF MISSOURI:	
		Measurements of Zenith-Angle Dependence of High Energy Musons	2,600
		UNIVERSITY OF NEBRASKA:	
		Construction of Two, Triple Coincidence Geiger Counter Telescopes	12,835
		Construction of a Neutron Monitor	8,520
		UNIVERSITY OF NEW HAMPSHIRE:	
		Reduction and Study of Neutron Intensity Time-Variations	5,229
		UNIVERSITY OF NEW MEXICO:	
		Investigation of the Semi-Diurnal Planetary Variation of Atmospheric Pressure	1,800
		NEW YORK UNIVERSITY:	
		Construction of a Neutron Monitor to be used in Alaska	15,600
		Studies of the Primary Cosmic Ray Spectrum	14,200
		Construction of Equipment for Measurement of Neutrons of Solar Origin at High Altitudes	15,200
		SOUTHERN ILLINOIS UNIVERSITY:	
		Emulsion Studies	2,000
		GEOMAGNETISM	
		UNIVERSITY OF CALIFORNIA:	
		Operation of Jarvis and Palmyra Magnetic Stations	22,500

CARNEGIE INSTITUTION OF WASHINGTON:			
Operation of South American Five-Station Network-----	21,000		
U. S. COAST AND GEODETIC SURVEY:			
Expenses of Coordinating and Administering the Geomagnetism Program-----	45,200		
Operation of Magnetic Observatories at Three Antarctic Stations-----	7,000		
Procurement of Equipment and Supplies for Magnetic Stations—Western Pacific-----	16,000		
Operation of East-West U. S. Network-----	14,185		
Operation of North-South Chain Magnetic Stations in Alaska--	6,600		
Magnetic Gradient Study in Alaska-----	20,000		
Operation of Rapid-Run Auxiliary Magnetographs-----	16,600		
Observations at Knox Coast Station in the Antarctic-----	3,000		
GLACIOLOGY			
AMERICAN GEOGRAPHICAL SOCIETY:			
Glacier Observations in Southern Alaska-----	6,400		
ARCTIC INSTITUTE OF NORTH AMERICA:			
Procurement of Glaciological Equipment-----	36,750		
Recruitment, Hiring and Travel of Scientists in the Antarctic--	99,365		
Establishment and Operation of the Headquarters Unit to Coordinate the Glaciology Program-----	11,000		
Procurement of Equipment for use on Mt. Michelson-----	25,500		
Study of Antarctic Glacial Geology-----	8,900		
Logistic Equipment and Supplies-----	5,000		
DEPARTMENT OF THE ARMY:			
Procurement of Deep Drilling Equipment and Supplies for Antarctica-----	17,000		
CALIFORNIA INSTITUTE OF TECHNOLOGY:			
Glacier Dynamics on Blue Glacier Olympic Mountains-----	5,000		
Antarctic Ice Sampling—Isotope Ratios-----	10,150		
OHIO STATE UNIVERSITY:			
Antarctic Data Reduction and Publication-----	76,755		
UNIVERSITY OF WASHINGTON:			
Meteorological Studies in Western United States (Blue Glacier)-----	13,500		
UNIVERSITY OF WISCONSIN:			
Procurement of Antarctic Portable Gravimeter-----	5,000		
GRAVITY MEASUREMENTS			
ARCTIC INSTITUTE OF NORTH AMERICA:			
Recruitment, Hiring and Travel of Scientists for Antarctic---	19,000		
UNIVERSITY OF CALIFORNIA:			
Observation of Mean Rigidity of the Earth-----	21,250		
COLUMBIA UNIVERSITY:			
Procurement and Construction of Pendulum Equipment for Submarine Pendulum-----	49,690		
Reduction of Gravity Measurements-----	9,800		
UNIVERSITY OF WISCONSIN:			
Procurement of a Gravimeter for Measurements in the Antarctic-----	6,550		
Antarctic Data Reduction and Publication-----	21,760		
Gravimeter Measurements-----	22,000		
WOODS HOLE OCEANOGRAPHIC INSTITUTION:			
Pendulum Gravity Surveys in Australia and New Zealand---	12,500		
IONOSPHERIC PHYSICS			
UNIVERSITY OF ALASKA:			
Ionospheric Absorption—Cosmic Noise Method in Alaska----	7,700		
Operation of an Atmospheric Whistler Station in Alaska---	18,000		
Fixed Frequency Backscatter in Alaska-----	8,450		
AMERICAN RADIO RELAY LEAGUE:			
Amateur Participation in Ionospheric Physics-----	9,455		
DARTMOUTH COLLEGE:			
Establishing the Latitude Dependence and Occurrence at Conjugate Geomagnetic Locations of Whistlers in the East--	48,800		
Ionospheric Absorption, Cosmic Noise Method in the East----	2,900		
NATIONAL BUREAU OF STANDARDS:			
Operation of Six Antarctic Stations-----	176,900		
Ionospheric Quality Control and Training-----	36,300		
Equatorial VHF Ionospheric Forward Scatter Measurements--	39,500		
Procurement of Three Atmospheric Radio Noise Recorders--	8,900		
Fixed Frequency Backscatter Measurements-----	10,200		
VHF Oblique-Incidence Sporadic E Fired Strength Measurements-----	22,500		
Ionospheric Physics Data Processing-----	63,285		
OFFICE OF NAVAL RESEARCH:			
Ionospheric Absorption, Cosmic Noise Method in Alaska----	8,393		
PENNSYLVANIA STATE UNIVERSITY:			
Ionospheric Absorption—Pulse Method-----	3,800		
True Height Determination----	47,753		
STANFORD UNIVERSITY:			
Logistic Support in the Atmospheric Whistler Program----	35,907		
Fixed Frequency Backscatter Measurements-----	45,300		
UNIVERSITY OF VIRGINIA:			
Procurement, Construction, and Testing of Radio Astronomy Equipment-----	6,900		

LONGITUDE AND LATITUDE

U. S. COAST AND GEODETIC SURVEY:
 Longitude and Latitude Measurements in Alaska----- 5, 000

METEOROLOGY

U. S. WEATHER BUREAU:
 Data Reduction and Publication----- 19, 650
 Procurement of Equipment and Supplies in Antarctica----- 98, 010
 South American Upper-Air Meteorological Observations----- 43, 500
 Operation at the Antarctic Weather Central----- 36, 700
 Arctic Ice Floe Meteorological Stations----- 81, 500
 Antarctic Geochemical Measurements of Carbon Dioxide and Surface Ozone----- 20, 000
 Reduction and Preparation for Publication Meteorological Data ----- 14, 670

OCEANOGRAPHY

UNIVERSITY OF CALIFORNIA:
 Procurement of Equipment for use in the Island Observatories Program----- 25, 005
 Related Expense for Deep Current Program in the Pacific--- 16, 000
 Procurement of Equipment for Radio-Chemistry Analysis----- 27, 000
 COLUMBIA UNIVERSITY:
 Operations of Island Observatories in the Atlantic----- 31, 400
 Operational Costs of Deep Current Oceanography Program in the Atlantic----- 87, 075
 Operational Costs for Radiochemistry Analysis----- 20, 000
 U. S. DEPARTMENT OF THE NAVY:
 Procurement of Bathythermographs for Deep Current Program ----- 421
 Reduction of Bathythermographic Data----- 30, 000
 TEXAS AGRICULTURAL AND MECHANICAL COLLEGE SYSTEM:
 Operational Cost of Deep Current Oceanography Program in the Atlantic----- 2, 000
 Radiochemistry Analysis of Sea Water in the Atlantic and Gulf of Mexico----- 14, 000
 UNIVERSITY OF WASHINGTON:
 Operation of the Deep Current Oceanography Program in the Pacific----- 28, 058
 Procurement of Carbon Dioxide Measuring Equipment----- 13, 042
 Arctic Sea Ice Studies----- 4, 325
 WOODS HOLE OCEANOGRAPHIC INSTITUTION:
 Operational Costs and Related Expenses in the Deep Current Oceanography Program in the Atlantic----- 29, 450
 Radiochemistry Analysis of Sea Water----- 16, 250
 Operational Costs of Oceanography Program in the Arctic--- 4, 000

ROCKETRY

U. S. DEPARTMENT OF THE ARMY:
 Procurement of Rockets and Equipment and Partial Operational Costs on Guam----- 40, 000
 STATE UNIVERSITY OF IOWA:
 Planning and Operation in Connection with Rocketry Program in the Arctic----- 33, 300
 OFFICE OF NAVAL RESEARCH:
 Pacific Solar Eclipse Expedition--- 50, 000

SEISMOLOGY

ARCTIC INSTITUTE OF NORTH AMERICA:
 Seismology Personnel in the Antarctic----- 47, 000
 CALIFORNIA INSTITUTE OF TECHNOLOGY:
 Procurement of Strain Seismographs for the Study of Crustal Strain Accumulation----- 3, 600
 Procurement of Equipment for use in the Antarctic----- 3, 000
 CARNEGIE INSTITUTION OF WASHINGTON:
 Seismic Exploration of Continental Structure----- 6, 000
 U. S. COAST AND GEODETIC SURVEY:
 Seismography Measurements on the Pacific Islands----- 7, 800
 Antarctic Telesismic Measurements----- 13, 000
 COLUMBIA UNIVERSITY:
 Procurement of Equipment for use in the Antarctic----- 3, 000
 Seismic Measurements in the Atlantic----- 5, 500
 Operational Costs for Long Period Wave Studies----- 4, 200
 Data Reduction and Publication--- 9, 220
 UNIVERSITY OF WISCONSIN:
 Antarctic Data Reduction and Publication----- 47, 255
 Seismic Exploration of Coastal Areas----- 31, 900

SOLAR ACTIVITY

CORNELL UNIVERSITY:
 A Solar Radio Noise Patrol---- 7, 565
 HIGH ALTITUDE OBSERVATORY:
 Development of Three Indirect Flame Recorders----- 2, 738
 Visual Observations----- 6, 000
 Rapid Data Presentation----- 3, 200
 UNIVERSITY OF MICHIGAN:
 High Resolution Profiles of H-alpha in Solar Flames----- 6, 250
 Operational Costs of McMath-Hulbert Observatory----- 6, 250
 NATIONAL BUREAU OF STANDARDS:
 Data Reduction and Publication--- 13, 000

WORLD DAYS

NATIONAL BUREAU OF STANDARDS:
 Operation of U. S. and World Warning Center----- 27, 340

GENERAL RELATED SCIENTIFIC SUPPORT

U. S. DEPARTMENT OF THE ARMY:	
Trail Rations for Oversnow Traverse Parties-----	10, 416
NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL:	
Coordination and Editorial Offices—International Special Committees-----	25, 000
Publication of Technical Manuals and Other Documents for the World Wide Standardization and Coordination of Scientific Measurements-----	40, 520
Support of Polar Operations Staff-----	68, 600
Support of the International Geophysical Year Polar Operations Staff-----	70, 000
U. S. WEATHER BUREAU:	
Antarctic Planning Staff-----	92, 313
Procurement of Equipment and Supplies—Antarctic Program-----	14, 000

WORLD DATA CENTER

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL:	
Rocket and Satellite World Data Center A-----	21, 000
NATIONAL BUREAU OF STANDARDS:	
Archives in Airglow and Ionosphere-----	21, 425
U. S. WEATHER BUREAU:	
Archives in Meteorology-----	32, 500

EARTH SATELLITE—SCIENTIFIC EXPERIMENTS

AIR FORCE CAMBRIDGE RESEARCH CENTER:	
Satellite Polar Propagation Measurements-----	25, 000
UNIVERSITY OF ALASKA:	
Auroral Zone Phenomena-----	167, 900
U. S. DEPARTMENT OF THE ARMY:	
Meteorological Observations From an Earth Satellite-----	222, 000
CALIFORNIA INSTITUTE OF TECHNOLOGY:	
Special Equipment and Engineering Services-----	147, 100
FRANKLIN INSTITUTE:	
Determination of the Flux of Heavy Primary Cosmic Ray Nuclei-----	15, 000
UNIVERSITY OF ILLINOIS:	
Radio Interferometry and Data Analysis-----	46, 250
STATE UNIVERSITY OF IOWA:	
Construction and Testing of Equipment and Supplies for Cosmic Ray Observations-----	71, 015
LINFIELD RESEARCH INSTITUTE:	
Absolute Signal Strength and Frequency Measurements-----	42, 000

UNIVERSITY OF MARYLAND:	
Measurement of the Meteoric Dust Erosion of the Satellite Skin-----	28, 750
NATIONAL BUREAU OF STANDARDS:	
Interferometer and Doppler Measurements-----	156, 000
Electron Density Profiles-----	65, 700
OFFICE OF NAVAL RESEARCH:	
Solar Radiation Measurements-----	30, 000
Special Equipment and Engineering Services for Scientific Experiments-----	1, 400
PENNSYLVANIA STATE UNIVERSITY:	
Doppler Measurements from Spaced Locations-----	84, 950
RESEARCH INSTITUTE FOR ADVANCED STUDIES:	
Determination of the Flux of Heavy Primary Cosmic Ray Nuclei-----	61, 750
STANFORD UNIVERSITY:	
Electron Density and Radio Propagation Studies-----	112, 000
UNIVERSITY OF WISCONSIN:	
Energy Budget of the Earth-----	65, 700

EARTH SATELLITE—TELEMETERING OF SCIENTIFIC DATA

CALIFORNIA INSTITUTE OF TECHNOLOGYS	
Telemetry Recording and Technical Assistance-----	30, 980

EARTH SATELLITE—SCIENTIFIC COORDINATION

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL:	
Operating Expenses of Program Coordination Staff-----	72, 800
Scientific Coordination of the Earth Satellite Program-----	102, 000

EARTH SATELLITE—OPTICAL TRACKING

U. S. DEPARTMENT OF THE ARMY:	
Establishment of an Interim Optical Network-----	121, 200
SMITHSONIAN INSTITUTION:	
Cost of Optical Tracking Stations-----	100, 200
Operation of Optical Tracking Stations-----	778, 325
Administration of a Visual Observing Program-----	80, 500
Observation Reduction, Analysis, and Central Operation-----	351, 800
Direct Administrative Costs-----	234, 000
SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS:	
Volunteer Photographic Tracking-----	18, 000

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