## National Science Foundation Research Infrastructure Summary FY 2016 Request to Congress

(Dollars in Millions)

(Dollars III M	illiioris)			FY 2016 Request change over:			
	FY 2014	FY 2015	FY 2016	FY 2014 Actual		FY 2015 Estimate	
	Actual	Estimate	Request	Amount	Percent	Amount	Percent
Facilities	\$978.61	\$973.76	\$1,006.26	\$27.65	2.8%	\$32.50	3.3%
Academic Research Fleet	84.86	87.00	88.00	3.14	3.7%	1.00	1.1%
ARF-Academic Research Fleet, Ship Ops & Upgrades	83.00	85.00	85.00	2.00	2.4%	-	-
ARF-Regional Class Research Vessels (RCRV) <sup>1</sup>	1.86	2.00	3.00	1.14	61.0%	1.00	50.0%
Arecibo Observatory	8.00	8.00	8.20	0.20	2.5%	0.20	2.5%
AST Portfolio Review Implementation	0.85	7.00	7.00	6.15	720.5%	-	-
Cornell High Energy Synchrotron Source (CHESS)	20.04	20.00	20.00	-0.04	-0.2%	-	-
Gemini Observatory	19.58	20.61	19.77	0.19	1.0%	-0.84	-4.1%
Geodesy Advancing Geosciences and EarthScope (GAGE)	11.58	11.58	12.33	0.75	6.5%	0.75	6.5%
George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES) <sup>2</sup>	18.14	-	-	-18.14	-100.0%	-	N/A
IceCube Neutrino Observatory (IceCube)	6.90	6.90	6.90	-	-	-	-
International Ocean Discovery Program (IODP)	50.00	48.00	48.00	-2.00	-4.0%	-	-
Large Hadron Collider (LHC)	17.37	18.00	18.00	0.63	3.6%	-	-
Laser-Interferometer Gravity-wave Observatory (LIGO)	36.43	39.43	39.43	3.00	8.2%	-	-
National High-Magnetic Field Laboratory (NHMFL)	42.26	24.04	34.66	-7.60	-18.0%	10.62	44.2%
National Nanotechnology Coordinated Infrastructure (NNCI) <sup>3</sup>	-	15.46	15.46	15.46	N/A	-	-
National Nanotechnology Infrastructure Network (NNIN) <sup>3</sup>	15.30	-	-	-15.30	-100.0%	-	N/A
National Solar Observatory (NSO)	8.00	8.00	9.50	1.50	18.8%	1.50	18.8%
National Superconducting Cyclotron Laboratory (NSCL)(MSU Cyclotron)	22.50	22.50	22.50	-	-	-	-
Natural Hazards Engineering Research Infrastructure (NHERI) <sup>2</sup>	-	12.00	12.50	12.50	N/A	0.50	4.2%
Ocean Observatories Initiative (OOI)	49.30	55.00	55.00	5.70	11.6%	-	-
Other Facilities <sup>4</sup>	2.66	2.66	2.66	-	-	-	-
Polar Facilities and Logistics	310.00	295.47	302.90	-7.10	-2.3%	7.43	2.5%
Seismological Facilities for Advancement of Geoscience & EarthScope (SAGE)	24.35	24.35	25.10	0.75	3.1%	0.75	3.1%
Other Facilities Investments	202.42	0.45.70	055.05	0407	40.00/	0.50	0.00/
Major Research Equipment and Facilities Construction <sup>5</sup>	230.48	245.76	255.35	24.87	10.8%	9.59	3.9% 50.0%
Facilities Pre-Construction Planning <sup>6</sup>		2.00	3.00	3.00	N/A	1.00	
Federally Funded R&D Centers  National Center for Atmospheric Research (NCAR)	<b>\$204.40</b> 96.60	<b>\$211.75</b> 98.20	<b>\$207.57</b> 99.00	<b>\$3.17</b> 2.40	<b>1.6%</b> 2.5%	<b>-\$4.18</b> 0.80	<b>-2.0%</b> 0.8%
National Center for Atmospheric Research (NCAR) National Optical Astronomy Observatories (NOAO)	25.50	25.50	21.75	-3.75	-14.7%	-3.75	-14.7%
1 2	77.41	83.31	82.08	4.67	6.0%	-1.23	-1.5%
National Radio Astronomy Observatories (NRAO) <sup>/</sup> Science & Technology Policy Institute (STPI)	4.89	4.74	4.74	-0.15	-3.1%	1.20	1.070
Other Research Instrumentation and Infrastructure	\$517.36	\$493.41	\$534.37	\$17.01	3.3%	\$40.96	8.3%
Major Research Instrumentation (MRI)	89.59	75.00	75.00	-14.59	-16.3%	φ-0.50	-
Mid-Scale Research Infrastructure	-	-	52.99	52.99	N/A	52.99	N/A
National Center for Science & Engineering Statistics (NCSES)	34.61	45.17	48.75	14.14	40.9%	3.58	7.9%
NCSES Science of Science and Innovation Policy (SciSIP) Activities	4.46	4.95	4.95	0.50	11.1%	-	-
Networking and Computational Resources Infrastructure and Services	127.53	113.80	123.80	-3.73	-2.9%	10.00	8.8%
Polar Environment, Health, and Safety (PEHS)	7.07	6.24	6.50	-0.57	-8.0%	0.26	4.2%
Research Resources <sup>8</sup>	252.66	246.50	220.63	-32.03	-12.7%	-25.87	-10.5%
Research Resources – Public Access Initiative	1.45	1.75	1.75	0.30	20.7%	-	-
RESEARCH INFRASTRUCTURE TOTAL	\$1,700.36	\$1,678.92	\$1,748.20	\$47.84	2.8%	\$69.28	4.1%

<sup>1</sup> Regional Class Research Vessels are a Pre-construction Planning project for potential MREFC funding. This funding is shown here (Academic Research Fleet) and is not included under Pre-construction Planning.

<sup>&</sup>lt;sup>2</sup> Funding for the George E. Brown Jr. Network for Earthquake Engineering (NEES) concluded in FY 2014. Natural Hazards Engineering Research Infrastructure (NHERI) is the successor program to NEES, beginning in FY 2015.

<sup>&</sup>lt;sup>3</sup> Funding for the National Nanotechnology Infrastructure Network (NNIN) concluded in FY 2014. National Nanotechnology Coordinated Infrastructure (NNCI) is the successor program, beginning in FY 2015.

<sup>&</sup>lt;sup>4</sup> Other Facilities includes support for other materials research facilities.

<sup>&</sup>lt;sup>5</sup> Funding levels for MREFC Projects in this table include support for: a) concept and development associated with ongoing and requested MREFC projects provided through the R&RA account; b) initial support for operations and maintenance during construction provided through the R&RA account; and c) implementation support provided through the MREFC account. In addition, \$2.0 million per year of R&RA funds are included here for cultural mitigation activities agreed to during the compliance process for the Daniel K. Inouye Solar Telescope.

<sup>&</sup>lt;sup>6</sup> Pre-construction planning includes funding for potential next generation multi-user facilities. Not included in this line are Regional Class Research Vessels, shown here under the Academic Research Fleet.

<sup>&</sup>lt;sup>7</sup> Funding for the National Radio Astronomy Observatory (NRAO) includes operation and maintenance support for the Atacama Large Millimeter Array (ALMA).

<sup>&</sup>lt;sup>8</sup> Funding for Research Resources includes support for the operation and maintenance of minor facilities, infrastructure and instrumentation, field stations, museum collections, etc.